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Minimum
Maximum
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                                                                                                                                                                                                                                                                                                                                                          Result
No.
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Maximum Match 100%
Listing first 45 summaries
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Pred. No. score grea and is der
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                                                                                                                                                                                                                                                                                                                                                         Score
                                                                                                                                                                                                                                                                                                                                                                                                                          d. No. is the number of results predicted by chance to have a
re greater than or equal to the score of the result being printed,
is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            seq
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 protein search, using sw model
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length: 2000000000
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Query
Match
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Gapop 10.0 ,
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1 LSELDDRADALQAXASQFEXSAAKLKRKYWWKNIK 35
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1: geneseqp1980s:*
2: geneseqp1990c:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2002273 seqs, 358729299 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-10-802-574-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  November 1,
                                        Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               geneseqp1980s:*
geneseqp1990s:*
geneseqp2000s:*
geneseqp2001s:*
geneseqp2001s:*
geneseqp2003as:*
geneseqp2003as:*
geneseqp2003bs:*
                                                                                                                                                                                                                                                                                                                                                            Length
  44400
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139.506 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gapext 0.5
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             AAR86822
AAR8532
AAR8582163
AAR89482
AAR8943681
                                                                                                                                                                                                                                                                                                                                                            H
                                                                                                                                                                                                                                                                                                                                                                                                    SUMMARIES
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                                                                                                                                                 Aar86822 VAMP isof
Aab4850301 VAMP2 pep
Aab4850 VAMP2 pep
Aao15163 Clostridi
Aab39482 Gene 49 h
Aar86821 VAMP isof
Ade57598 Human Pro
Ade60811 Human Pro
Ade60811 Human Pro
Ade57606 Human Pro
Ade60829 Rat Prote
Ade57604 Rat Prote
Ade57604 Rat Prote
Ade57604 Rat Prote
Ade57596 Rat Prote
                                        Ade60831
Ade57600
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Ade57594
Ade57604
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 Aay88243
Abp43681
Abp76220
                                                                                                                                                                                                                                                                                                                                                            Description
                                        Human Pro
Human Pro
Rat Prote
Human Pro
Human Pro
Rat Prote
Vesicle-a
Rat vesic
  Bovine
VAMP-2
Human G
  RESULT 1
RARRAGE TO ANARCA
ANARCA
XX AARCA
XX AARCA
XX VAMI
XX VAMI
XX VAMI
XX VAMI
XX Neu
XX Synt
XX Anti
XX Misc
FT 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         neurotransmitter; antibody; detecti
                                          Assay for botulinum or tetanus toxin - by combining test cpd. with substrate which is cleaved by the toxin, and antibody specific for the cleaved but not uncleaved substrate.
                                                                                                                                                                                                                                                                                                                                                 Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                    Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Synthetic.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAR86822;
                                                                                                                           Shone CC,
                                                                                                                                                                                                03-JUN-1994;
                                                                                                                                                                                                                         02-JUN-1995;
                                                                                                                                                                                                                                                    14-DEC-1995.
                                                                                                                                                                                                                                                                              WO9533850-A1
                                                                                                                                                                                                                                                                                                                                                                          Peptide
                Example 1;
                                                                                                 WPI; 1996-040249/04
                                                                                                                          Hallis B,
                 Page 28-29;
                                                                                                                                                                                                                                                                                                                                                    /note=
37
                  48pp; English
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6	164	σ	ď	σ	S)	S)	S)	σ ₁	S)	o	σ	169	6	σ	169	σ	σ	9	σ	
5	95.3	<u>ښ</u>	97.1	7.	7.	97.1	97.1	98.3	98.3	98.3	98.3	98.3	98.3	98.3		∞	œ	98.3	œ	
100	100	35	114	114	82	82	35	609	608	368	368	116	116	116	116	116	116	116	116	
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AAY88240	AAW04182	AAR86824	ADM97008	ABW01720	ADG89012	AAY88244	AA015157	ADF90406	AAY43845	ADF90403	AAY43843	ADM97005	ADM97007	ADM97006	ADG89011	ABW01705	ABW01718	ABW01719	AAE36664	
Aay88240	Aaw04182	Aar86824	Adm97008	Abw01720	Adg89012	Aay88244	Aao15157	Ad:90406	Aay43845	Ad: 90403	Aay43843	Adm97005	Adm97007	Adm97006	Adg89011	Abw01705	Abw01718	Abw01719	Aae36664	
Human cer	Cellubrev	VAMP isot			.0	Xenopus s	Clostridi	Rat VAMP-		Rat VAMP-	Amino aci		Bovine VA		Bovine sy	Human VAM	Mouse VAM		Human VAM	

AL I GNMENTS

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VAMP; vesicle-associated membrane protein; SNAP-25; syntaxin;
neurotransmitter; neurotoxin; botulinum; botulism; cleavage; substrate;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VAMP isoform-1 residues 60-94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAR86822 standard; peptide;
                                     (MICR-) MICROBIOLOGICAL RES AUTHORITY. (CAMR-) CAMR CENT APPLIED MICROBIOLOGY & RES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               detection; assay.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                 94GB-00011138.
                                                                                                                                              95WO-GB001279.
                                                                                                                                                                                                                                                                    /label= C-terminal cysteine
/note= "may be present to attach to peptide to solid-
phase"
                                                                                                                                                                                                                                                                                                                                                                                            /label= N-terminal Cysteine
/note= "may be present to attach peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
James BAF,
                                                                                                                                                                                                                                                                                                                                                        "VAMP isoform-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (plus N- and C-terminal cysteines)
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Quinn
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ÇP;
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RESULT 3
AAB48582
ID AAB4
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AABSO301 ID
AAABSO301 ID
AABSO301 ID
AABSO301
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Best Local S
Matches 33
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Best Local S
Matches 33
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                        AAB48582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 37 AA;
                                                                                                                                                                                                                                                                                                                                                                                                            The present sequence was investigated in the search for Botulinum toxin inhibitors (BttxB). Previn compounds which inhibit the enzymatic activit of BttxB and tetanus neurotoxins were isolated. Previns may be used to construct compounds such as buforinins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             23-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VAMP2; antibacterial; Botulinum toxin inhibitor; BttxB; previn;
tetanus neurotoxin; buforinin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VAMP2 peptide
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                                                                                                                                                                                                                                                                                                                                                             Sequence 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Novel Previn compounds useful for inhibiting the protease activity Botulinum B and tetanus toxins.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17-MAY-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAB50301 standard;
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                                                                                                                                                                                                    LSELDDRADALQAXASQFEXSAAKLKRKYWWKNLK 35
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                      standard;
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                                                                                                                                                     LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK
                                                                                                                                                                                                                                                                                                                                                                AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Page 5; 47pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Moorad
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                      peptide;
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Pred. No. 7.2e
0; Mismatches
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Pred. No. 6.6e-17;
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nes 2;
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                                                                                                                                                                                                                                                                                                           Length 40;
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RESULT 4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present sequence is one of a number of peptide or peptide-like compounds, designated buforins, which inhibit the enzymatic activity of Botulinum toxin B (BttxB) and Tetanus neurotoxins. The buforins are useful for treating Botulinum or tetanus intoxication by administering composition comprising a buforin to the subject prior to the contact wi BttxB or tetanus intoxication. Antibodies specific for buforins are useful for detecting buforins by forming immunocomplexes. The buforins have improved circulatory half-life, solubility, resistance to degradation and interaction with the active site of the toxin
                                                                                                                                                                                                                                          Clostridial neurotoxin substrate; botulinum neurotoxin substrate; FRET
                                                                                                                                                                                                                                                                                                 Clostridial neurotoxin protease substrate peptide
                                                                                                                                                                                                                                                                                                                                                           02-SEP-2002
                                                                                                                                                                                                                                                                                                                                                                                                               AA015163;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAO15163 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 40 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; Page 5; 47pp; English.
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  Cleavage-site
                                                                                                                                       Unidentified
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                                                      Modified-site
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   33;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 LSELDDRADALQAXASQFEXSAAKLKRKYWWKNLK 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gordon RK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                         resonant energy transfer assay; quenched-signal; neurotoxin detection; food.
                                                                                                                                                                                                                                                                                                                                                           (first
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/note= "N-fluoresceinyl-glycine"
20. .21
                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                           entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98.3%;
94.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Moorad
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 169; DB 4;
Pred. No. 7.2e-17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Å
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 40;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
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AAB39482
ID AAB39482
AC AAB3
XX AAB3
XX AAB3
XX AAB3
XX Huma
DE Gene
XX Huma
KW Huma
KW anti
KW anti
KW anti
KW fend
KW fend
KW food
KW fend
KW infe
XX Sos
DS Sos
XX Sos
PN WO20
PN 02-C
XX Sos
PN WO20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                Human; secreted protein; diagnosis; cytostatic; immunosuppressive; nootropic; neuroprotective; antiviral; antiallergic; hepatotropic; antidiabetic; antiinflammatory; antivicer; vulnerary; anticonvulsant; antibacterial; antifungal; antiparasitic; cardiant; gene therapy; food additive; preservative; chromosome identification; cancer; female reproductive system disorder; immune disorder; wound healing; cardiovascular disorder; neurological disease; infectious disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  botulinum neurotoxin substrate peptides that can serve as immobilised substrates (i.e. bound to a solid phase) in assays for the proteolytic activities of clostridial neurotoxins. The clostridial (including the Clostridium botulinum) neurotoxin substrate peptides are useful for detecting the presence of clostridial neurotoxins in a sample (e.g. food or an environmental sample). The present amino acid sequence represents a clostridial neurotoxin substrate peptide of the invention
                                     23-MAR-2000; 2000WO-US007724.
                                                                                                              WO200058340-A2
                                                                                                                                                                                                                                                                                                                                                  Gene 49 human secreted protein homologous amino acid sequence #141
                                                                                                                                                                                                                                                                                                                                                                                       02-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAB39482 standard; protein; 54 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 42 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The invention comprises clostridial neurotoxin substrate peptides which can serve as fluorescence resonant energy transfer assay (FRET) or quenched-signal substrates in assays for the proteolytic activities of clostridial neurotoxins. The invention further comprises Clostridium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 24; Page 15; 48pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Substrate useful in e.g. an assay for the protease activity of clostridial neurotoxin, comprises modified peptide or protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25-SEP-2000; 2000US-0235050P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25-SEP-2001; 2001WO-US030188
                                                                                                                                                                                       intection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200225284-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2002-499829/53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 LSELDDRADALQAXASQFEXSAAKLKRKYWWKNLK 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US MEDICAL RES INST INFECTIOUS DISEASES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK 38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Stafford
                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "The peptide is cleaved between these two residues clostridial neurotoxin"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 169; DB 5; 1
Pred. No. 7.6e-17;
0; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 42;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The polynuclectide sequences given in AAC74337 to AAC74386 encode the CC human secreted proteins given in AAB39402 to AAB39451. AAB39452 to CC human secreted proteins are given in the exemplification of the present continuous to them, which are given in the exemplification of the present convention. Human secreted proteins have activities based on the tissues and cells the genes are expressed in. Example of activities include: cyrostatic; immunosuppressive; noutropic; antinflammatory; antivital; convulsant; antibacterial; antinflammatory; antivicer; curvaturerary; anticonvulsant; antibacterial; antinflammatory; antivicer; curvating or ameliorating a medical condition in e.g. humans, mice, crabbits, goats, horses, cats, dogs, chickens or sheep. The polypeptides can also be used as a food additive or preservative to increase or curvations of dentification. They are also useful as probes for diagnosing cardisorder related to the female reproductive system, particularly breast cand ovarian cancer. They are also useful as probes for diagnosing caponists and antagonists are useful in the diagnosis, treatment and curvations of: (a) cancer; (b) immune disorders; (c) cardiovascular confectious diseases such as viral, bacterial, fungal and parasitic confections. AAC74128 to AAC74336 and AAB39401 represent sequences used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                VAMP; vesicle-associated membrane protein; SNAP-25; syntaxin; neurotransmitter; neurotoxin; botulinum; botulism; cleavage; substrate;
                                                                                                                                                                                                                                                                                             15-AUG-1996
                                                                                                                                                                                                                                                                                                                                                                    AAR86821 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 54 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Fifty nucleic acid molecules encoding human secreted proteins, useful in the prevention, treatment and diagnosis of cancer, immune disorders, cardiovascular disorders and neurological diseases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 07-JAN-2000; 2000US-0174850P
03-JUN-1994;
                                     02-JUN-1995;
                                                                                                            WO9533850-A1
                                                                                                                                               Synthetic
                                                                                                                                                                                   antibody; detection;
                                                                                                                                                                                                                                                         VAMP isoform-1 residues 33-94.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; Page 390; 391pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Rosen CA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                              20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 LSELDDRADALQAXASQFEXSAAKLKRKYWWKNLK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     l Similarity
33; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                            LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                             (first entry)
                                     95WO-GB001279
 94GB-00011138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98.3%;
                                                                                                                                                                                   assay.
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                                                                                                                                                                                                                                                                                                                                                                        62
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 169; DB 3
Pred. No. 1e-16;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 3; Length 54;
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Indels

0

Gaps

0,

18-10-602-3/4-5.Fag

protein; 115

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g, Ş

80

ь

LSELDDRADALQAXASQFEXSAAKLKRKYWWKNLK 35 LSELDDRADALQAGASQFESSAAKLKRKYWWKNLK 62

Query Match Best Local

Similarity 94.3 33; Conservative

0;

Score 169; DB 2; Pred. No. 1.2e-16; 0; Mismatches 2

Length 62;

0

Gaps

0

98.3%;

Sequence 62

ΑA;

Human 29-JAN-2004 Protein

(first entry) P19065,

spinal pain; neuronal tissue; gene therapy; segmental nerve injury; chronic constriction injury; CCI; nerve injury; SNI; Chung. SEQ ID NO 3460.

Homo sapiens

WO2003016475-A2 27-FEB-2003

14-AUG-2002; 2002WO-US025765

14-AUG-2001; 2001US-0312147P. 01-NOV-2001; 2001US-0346382P. 26-NOV-2001; 2001US-0333347P.

(GEHO) GEN HOSPITAL CORP. BAYER AG.

Woolf C, D'urso D, Befort ζ, Costigan

WPI; 2003-268312/26 GENBANK; P19065.

New composition comprising two or more isolated polypeptides, useful for preparing a medicament for treating pain in an animal.

The invention discloses a composition comprising two or more isolated rat CC or human polynucleotides or a polynucleotide which represents a fragment, CC derivative or allelic variation of the nucleic acid sequence. Also CC claimed are a vector comprising the novel polynucleotide, a host cell comprising the vector, a method for identifying a nucleotide sequence which is differentially regulated in an animal subjected to pain and a kit to perform the method, an array, a method for identifying an agent that increases or decreases the expression of the polynucleotide sequence that is differentially expressed in neuronal tissue of a first animal cc that expression of the polynucleotide sequence that is differentially expressed in neuronal tissue of a first animal cc expressed in an animal subjected to pain, a method for identifying a compound which regulates the expression of the polynucleotides equence which is differentially cc expressed in an animal subjected to pain, a method for identifying a compound that regulates the activity of one or more of the polynucleotides, a method for producing a pharmaceutical composition, a cc polynucleotides, a method for producing a pharmaceutical composition, a specification, a method for identifying a compound useful in treating pain and a pharmaceutical composition comprising the one or more cc polypeptides or their antibodies. The polynucleotide or the compound that modulates its activity is useful for preparing a medicament for treating pain made and pharmaceutical composition comprising the one or more cc polypeptides or their antibodies. The polynucleotide or the compound that modulates its activity is useful for producing a medicament for treating pain. Note: the sequence data for this patent did not form part of the printed cc producing which is differentially expressed during pain. Note: the specification, which is differentially expressed during pain. Note: for minimal contractive that the printed contractive that the printed contractive that the printed contractive ftp.wipo.int/pub/published_pct_sequences.

Example 3; Page 28; 48pp; English.

Assay for botulinum or tetanus toxin - by combining test cpd. with substrate which is cleaved by the toxin, and antibody specific for the cleaved but not uncleaved substrate.

WPI; 1996-040249/04

Shone CC,

Hallis B,

James BAF,

Quinn

(MICR-) MICROBIOLOGICAL RES AUTHORITY. (CAMR-) CAMR CENT APPLIED MICROBIOLOGY & RES.

The botulinum neurotoxins possess highly specific zinc-endopeptidase activities within their light sub-units. Depending on the neurotoxin type these act to cleave small proteins within the nerve cell which are involved in neurotransmitter release. Antibodies are used in assays which detect cleaved but not uncleaved substrate. Tetanus toxin cleaves the protein VAMP (vesicle-associated membrane protein) at an identical site to that of botulinum toxin type B (BoNT/B). The specificities of the endopeptidase activities of the two toxins however differ in the minimum peptide substrate size required for cleavage. While BoNT/B requires peptide substrates of 30-35 residues in length for optimal cleavage, the requirement for tetanus toxin is peptide substrates of 50 residues in length. The present sequence, VAMP isoform-1 residues 33-94, is a suitable substrate for tetanus toxin

Sequence 115 AA;

Matches Query Match Local 33; Similarity Conservative 98.3%; 94.3%; 0 Score 169; DB 7; Pred. No. 2.3e-16; Mismatches 2 Length 115; Indels 0, Gaps 0

밁 Ş 59 1 LSELDDRADALQAXASQFEXSAAKLKRKYWWKNLK 35 LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK . 93

RESULT 8
ADB557612
ID ADB557612
XX ADB55
XX ADB5
XX ADB5
XX ADB5
XX ADB5
XX AB1
DE Rat
XX Rat
XX Chrc

ADE57612 standard; protein; 115 A

ADE57612;

29-JAN-2004 (first entry)

Rat Protein Q64357, SEQ ID NO 3474.

Rat; pain; neuronal tissue; gene therapy; spinal segmental nerve injury; chronic constriction injury; CCI; spared nerve injury; SNI; Chung.

Rattus norvegicus.

WO2003016475-A2

27-FEB-2003

14-AUG-2002; 2002WO-US025765

14-AUG-2001; 2001US-0312147P. 01-NOV-2001; 2001US-0346382P. 26-NOV-2001; 2001US-0333347P.

(GEHO CORP.

(FARB GEN HOSPITAL BAYER AG.

Woolf C, D'urso 'n Befort ζ, Costigan

WPI; 2003-268312/26. GENBANK; Q64357.

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or human polynucleotides or a polynucleotide which represents a fragment, comparising the vector comprising the novel polynucleotide, a host cell comprising the vector, a method for identifying a nucleotide sequence that increases or decreases the expression of the polynucleotide to pain and a compound that regulated in an animal subjected to pain and a compound that regulates the expression of the polynucleotide sequence that is differentially expressed in neuronal tissue of a first animal compound that regulates the expression of the polynucleotide sequence that is differentially expressed in neuronal tissue of a first animal compound that regulates the expression of the polynucleotide compound that regulates the activity of one or more of the polynucleotides, a method for producing a pharmaceutical composition, a method for identifying a compound which regulates the activity in an animal of one or more of the polynucleotides, a method for producing a pharmaceutical composition, a method for identifying a compound useful in treating compound that regulates the compound useful in treating activity in an animal of one or more of the polynucleotides or their antibodies. The polynucleotide compound that composition comprising the one or more of the polynucleotides or their antibodies. The polynucleotide or the compound that protein (e.g. spinal segmental nerve injury (Chung), chronic constriction composition (e.g. spinal segmental perve injury (SNI)) in an animal (e.g. gene therapy). The sequence presented is a rat protein (shown in Table 2 of the specification, which is differentially expressed during pain. Note:

The sequence data for this patent did not form part of the printed composition of the printed and composition is patent and in electronic form directly from WIPO at the specification, but was obtained in electronic form directly from WIPO at
ADB60831
ID ADB6
XX
ADB
XX
ADB
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ADB
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Hum
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Best Local S
Matches 33
       14-AUG-2001;
01-NOV-2001;
26-NOV-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 1; Page; 1017pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New composition comprising two or more isolated polypeptides, useful for preparing a medicament for treating pain in an animal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 115
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                                                                                                                                             14-AUG-2002;
                                                                                                                                                                                                                                                                                       WO2003016475-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human Protein P19065, SEQ ID NO 6743.
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                                                                                                                                                                                                                                                                                                                                                          sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                         pain; neuronal tissue; gene therapy;
segmental nerve injury; chronic constriction injury; CCI;
nerve injury; SNI; Chung.
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       2001US-0312147P
2001US-0346382P
2001US-0333347P
                                                                                                                                             2002WO-US025765.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
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Pred. No. 2.3e-16;
0; Mismatches 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            or more isolated
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cor numan polymucieotides or a polymucieotide which represents a fragment, corrective or allelic variation of the nucleic acid sequence. Also comprising the vector comprising the novel polymucleotide, a host cell comprising the vector, a method for identifying a nucleotide sequence which is differentially regulated in an animal subjected to pain and a kit to perform the method, an array, a method for identifying an agent that increases or decreases the expression of the polymucleotide sequence that is differentially expressed in neuronal tissue of a first animal subjected to pain, a method for identifying an agent the expression of a polymucleotide sequence which is differentially expressed in an animal subjected to pain, a method for identifying a compound which regulates the activity of one or more of the compound that regulates the activity of one or more of the polymucleotides, a method for producing a pharmaceutical composition, a method for identifying a compound or small molecule that regulates the convertible of the polymucleotide square in the specification, a method for identifying a compound useful in treating pain (e.g. spinal segmental nerve injury (Chung), chronic constriction comprising the one or more convertibles its activity is useful for preparing a medicament for treating pain (e.g. spinal segmental nerve injury (Chung), chronic constriction the sequence data for this patent did not form part of the printed specification, which is differentially expressed during pain. Note:

The sequence data for this patent did not form part of the printed of from the pain and a patent for sequence form directly from WiPo at the printed and convergences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New composition comprising two or more isolated polypeptides, useful for preparing a medicament for treating pain in an animal.
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                                              ftp.wipo.int/pub/published_pct_sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 invention discloses a composition comprising tw
numan polynucleotides or a polynucleotide which
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BAYER AG.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                comprising two
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      represents a fragment,
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                                              Query Match
Best Local S
Matches 33
                       1 LSELDDRADALQAXASQFEXSAAKLKRKYWWKNLK 35
                                               33;
LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK 93
                                               Conservative
                                                 0
                                                 Score 169; DB 7;
Pred. No. 2.3e-16;
0; Mismatches 2;
                                                   Indels
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Sequence 115

AA;

Similarity

98.3%;

Length 115;

Gaps

0

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RESULT 10
ADE57606
ID ADE57
XX ADE57
XX ADE57
XX ADE57
XX Luman
XX Human
                                                                                                                                                                                  Human Protein P19065,
                                                                                  Homo sapiens
                                                                                                                    spared
                                                                                                                                                                                                                    29-JAN-2004
                                                                                                                                                                                                                                                      ADE57606;
                                                                                                                                                                                                                                                                                       ADE57606 standard;
                                                                                                                pain; neuronal tissue; gene therapy; segmental nerve injury; chronic cons nerve injury; SNI; Chung.
                                                                                                                ntal nerve injury; chronic constriction injury;
injury; SNI; Chung.
                                                                                                                                                                                                                      (first
                                                                                                                                                                                                                                                                                       protein;
                                                                                                                                                                                                                    entry
                                                                                                                                                                                    SEQ ID
                                                                                                                                                                                                                                                                                       115 AA
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27-FEB-2003

14-AUG-2002;

2002WO-US025765

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RESULT 11
ADE60829
ID ADE60
XX ADE60
XC ADE60
XC ADE60
XX 29-JF
XX Rat |
XX Rat;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The invention discloses a composition comprising two or more isolated rat CC or human polymuclectides or a polymuclectide which represents a fragment, CC derivative or allelic variation of the nucleic acid sequence. Also CC claimed are a vector comprising the novel polymuclectide, a host cell comprising the vector, a method for identifying a nuclectide sequence CC which is differentially regulated in an animal subjected to pain and a CC kit to perform the method, an array, a method for identifying an agent that increases or decreases the expression of the polymuclectide sequence CC that is differentially expressed in neuronal tissue of a first animal CC the expression of a polymuclectide sequence which is differentially expressed in neuronal tissue of a first animal CC expressed in an animal subjected to pain, a method for identifying a compound which regulates the expressed in a method for producing a compound which regulates the polymuclectide sequence which is differentially composition, a method for identifying a pharmaceutical composition, a compound that regulates the activity of one or more of the polymuclectides given in the cc polymuclectides, a method for producing a pharmaceutical composition, a compound that regulates the activity of a pharmaceutical composition, a compound useful in treating palymuclectides or their antibodies. The polymuclectide or the compound that conspiring a compound useful in treating composition and a pharmaceutical composition comprising the one or more polympetides or their antibodies. The polymuclectide or the compound that constriction and a pharmaceutical composition on the composition or treating composition and a pharmaceutical composition of the polympetides or their antibodies. The polymuclectide or the compound that constriction and the constriction of the printed constriction in the part of the printed constriction, but was obtained in electronic form directly from WIPO at the sequence attacks of the part of the printed constriction in the printed constriction att
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Best Local
                                                                                                                                                    Rat Protein
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                                         Rattus norvegicus
                                                                              Rat; pain; neuronal tissue; gene therapy; spinal segmental nerve injury; chronic constriction injury; CCI; spared nerve injury; SNI; Chung.
                                                                                                                                                                                           29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 115 AA;
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01-NOV-2001; 2001US-0346382P
26-NOV-2001; 2001US-0333347P
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                                                                                                                                                                                                                                                                                                                                                                                                                     1 LSELDDRADALQAXASQFEXSAAKLKRKYWWKNLK 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               33.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                           LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK 93
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                                                                                                                                               Q64357,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                           (first
                                                                                                                                                 SEQ ID NO 6741.
                                                                                                                                                                                           entry)
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Pred. No. 2.3e-16;
0; Mismatches 2;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 115;
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ADE57600
ID ADE5
XX
AC ADE5
XX
AC ADE5
XX
AC 29-U
XX
AC Rat
XX
AC Rat
XX
Rat;
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                                                                                                                                                                                                                   RESULT 12
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Best Local :
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                                                                                                                               ADE57600;
                                                                                                                                                                       ADE57600 standard; protein; 115
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01-NOV-2001; 2001US-0346382P
26-NOV-2001; 2001US-0333347P
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                                                                                                                                                                                                                                                                                                                                                                                             Similarity
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••
                                                                                                                                                                                                                                                                                                                                                                                             Score 169;
Pred. No. 2.
                                                                                                                                                                                                                                                                                                                                                                             Mismatches
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?.3e-16;
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Rat; pain; neuronal Rat Protein Q64357,

tissue;

gene therapy; spinal segmental nerve injury;

SEQ ID NO 3462.

29-JAN-2004

(first

entry)

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ADES7604
ID ADES
XX
AC ADES
XX
DT 29-1
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                                                                                                                            RESULT 13
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Matches 33
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01-NOV-2001; 2001US-0346382P
26-NOV-2001; 2001US-0333347P
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29-JAN-2004
                                        ADE57604;
                                                                                 ADE57604 standard;
                                                                                                                                                                                                                                                                                                                                                             Sequence 115
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                                                                                                                                                                                                                                                                                                                                                             AA;
(first entry)
                                                                              protein; 115
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                                                                                                                                                                                                                                                                                                                  Length 115;
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                                                                                                                                                                                                                                                                            0,
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RESULT 14 ADE57596 ID ADE5

ADE57596 standard; protein; 115

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59 _

LSELDDRADALQAXASQFEXSAAKLKRKYWWKNLK

LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK

93 ა 5 Query Match
Best Local S
Matches 33

Similarity

98.3%;

Conservative

0

Score 169; DB 7; Pred. No. 2.3e-16; 0; Mismatches 2;

Length 115; Indels

0

Gaps

0;

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CC claimed are a vector comprising the novel polynucleotide, a host cell comprising the vector, a method for identifying a nucleotide sequence which is differentially regulated in an animal subjected to pain and a cc kit to perform the method, an array, a method for identifying an agent that increases or decreases the expression of the polynucleotide sequence that is differentially expressed in neuronal tissue of a first animal cc subjected to pain, a method for identifying a agent ce expressed in an animal subjected to pain, a method for identifying a compound which regulates the expressed in an animal subjected to pain, a method for identifying a compound which regulates the compound that regulates the activity of one or more of the polynucleotides, a method for producing a pharmaceutical composition, a method for identifying a compound which is differentially compound that regulates the activity of one or more of the polypeptides given in the specification, a method for identifying a compound useful in treating pain and a pharmaceutical composition comprising the one or more composition or more composition and a pharmaceutical composition comprising the one or more compained that regulates the sequence or their antibodies. The polypucleotide or the compound that composition or more injury (CCI) and spared nerve injury (SNI) in an animal (e.g. gene the specification, which is differentially expressed during pain. Note: The sequence data for this patent did not form part of the printed composition of the pr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The invention discloses a composition comprising two or more isolated rat or human polynucleotides or a polynucleotide which represents a fragment, derivative or allelic variation of the nucleic acid sequence. Also
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01-NOV-2001; 2001US-0346382P.
26-NOV-2001; 2001US-0333347P.
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(FARB )
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Sequence 115 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14-AUG-2002; 2002WO-US025765
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         pain; neuronal tissue; gene therapy; spinal segmental nerve injury;
nic constriction injury; CCI; spared nerve injury; SNI; Chung.
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BAYER AG.
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ADE57596;

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The invention discloses a composition comprising two or more isolated rat or human polynucleotides or a polynucleotide which represents a fragment, cc derivative or allelic variation of the nucleic acid sequence. Also claimed are a vector comprising the novel polynucleotide, a host cell comprising the vector, a method for identifying a nucleotide sequence which is differentially regulated in an animal subjected to pain an agent that increases or decreases the expression of the polynucleotide sequence that is differentially expressed in neuronal tissue of a first animal cc that is differentially expressed in neuronal tissue of a first animal subjected to pain, a method for identifying a compound which regulates the expression of the polynucleotide sequence that expressed in an animal subjected to pain, a method for identifying a compound which regulates the compound that regulates the activity of one or more of the polynucleotides, a method for producing a pharmaceutical composition, a compound that regulates the activity of one or more of the polynucleotides given in the specification, a method for identifying a compound useful in treating pain and a pharmaceutical composition composition to the polypeptides or their antibodies. The polynucleotide or the compound that modulates its activity is useful for preparing a medicament for treating pain and a pharmaceutical nerve injury (Chung), chronic constriction injury (CCI) and spared nerve injury (SNI) in an animal (e.g. gene the sequence data for this patent did not form part of the printed constriction which is differentially expressed during pain. Note:

The specification, which is differentially expressed during pain. Note:

The sequence data for this patent did not form part of the printed constriction at the published not semiences.
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                                                                             Sequence 115 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New composition comprising two or more isolated polypeptides, useful preparing a medicament for treating pain in an animal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14-AUG-2001; 2001US-0312147P.
01-NOV-2001; 2001US-0346382P.
26-NOV-2001; 2001US-0333347P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1; Page; 1017pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Woolf C,
                                                                                                              ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENBANK; Q64357.
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  33;
                      Similarity
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  Conservative
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                    98.3%;
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  Score 169; DB
Pred. No. 2.3e
0; Mismatches
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                    169;
No. 2
                    DB 7;
.3e-16;
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1 LSELDDRADALQAXASQFEXSAAKLKRKYWWKNLK 35

LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK

93

Query Match
Best Local Similarity
Matches 33; Conserv

98.3%;

Score 169; DB 7; Pred. No. 2.3e-16; 0; Mismatches 2;

Length 115; Indels

0

Gaps

0

Sequence 115 AA;

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RESULT 15
RESULT 15
ADES7602
ID ADES7602
ID ADES7602
AC ADES77
AC ADES76
AC 
                                                                                       The invention discloses a composition comprising two or more isolated rat or human polynucleotides or a polynucleotide which represents a fragment, CC derivative or allelic variation of the nucleic acid sequence. Also CC claimed are a vector comprising the nucleic acid sequence which is differentially regulated in an animal subjected to pain and a CC kit to perform the method, an array, a method for identifying a nucleotide sequence that is differentially regulated in an animal subjected to pain and a CC kit to perform the method, an array, a method for identifying an agent that is differentially expressed in neuronal tissue of a first animal CC subjected to pain, a method for identifying an agent CC the expression of a polynucleotide sequence which is differentially expressed in neuronal tissue of a first animal CC subjected to pain, a method for identifying a compound which regulates the expression of the polynucleotide sequence which is differentially CC expressed in an animal subjected to pain, a method for identifying a compound which regulates the activity of one or more of the polynucleotides, a method for producing a pharmaceutical composition, a cc polynucleotides, a method for more of the polypeptides given in the specification, a method for identifying a compound useful in treating compound useful in treating compound useful in treating compound that path and apharmaceutical composition comprising the one or more compound useful in treating compound that segmental nerve injury (Chung), chronic constriction constriction constriction injury (CCI) and spared nerve injury (SNI)) in an animal (e.g. gene construction which is differentially expressed during pain. Note: The sequence data for this patent did not form part of the printed construction of the prin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; pain; neuronal tissue; gene therapy; spinal segmental nerve injury; chronic constriction injury; spared nerve injury; SNI; Chung.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New composition comprising preparing a medicament for
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01-NOV-2001; 2001US-0346382P
26-NOV-2001; 2001US-0333347P
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                                                                       ftp.wipo.int/pub/published_pct_sequences
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(FARB ) BAYER AG.
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Listing first 45 summaries
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/cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
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US-09-570-022-16
US-09-570-023-8
US-09-570-023-8
US-09-570-023-8
US-09-962-360B-9
US-08-409-373B-4
US-08-409-373B-4
US-08-409-373B-4
US-08-621-018B-10
US-09-962-360B-3
US-09-962-360B-3
US-09-483-665-11
US-09-483-665-6
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US-09-483-655-6
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US-09-483-655-6
Sequence 9, Appli
Sequence 11, Appl
Sequence 16, Appl
Sequence 18, Appli
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US-08-760-001-9
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164 95.3 347 4 US-09-513-783A-28 164 95.3 350 4 US-09-513-783A-30 164 95.3 350 4 US-09-513-985-14 157 91.3 118 1 US-08-393-985-14 157 91.3 118 1 US-08-393-985-14 157 91.3 118 1 US-08-393-985-14 105 61.0 56 3 US-08-393-985-14 105 61.0 105 94.0 105-09-621-976-627 105 62 49.4 102 1 US-08-409-373B-2 105 49.4 102 1 US	95.3 347 4 US-09-513-783A-2 95.3 347 4 US-09-513-783A-3 95.3 350 4 US-09-513-783A-3 95.3 350 4 US-09-513-783A-3 94.2 350 4 US-09-962-3608-1 94.2 35 4 US-09-962-3608-1 94.3 118 1 US-08-333-985-1 95.3 US-08-819-266-5 94.4 US-09-621-976-56 49.4 102 1 US-09-621-976-56 49.4 102 1 US-09-621-978-6 49.4 102 1 US-08-409-373B-78-78-78-78-78-78-78-78-78-78-78-78-78-	45	44	43	<u>4</u> 2	41	40	39	38	37	36	ω ω	34	ω ω	32	31	30	29	28
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47 4 US-09-513-783A-3 50 4 US-09-430-656-30 50 4 US-09-430-656-36 35 4 US-09-430-656-38 35 4 US-09-821-3608-4 18 1 US-08-393-985-14 18 1 US-08-393-985-14 18 1 US-08-819-286-5 94 4 US-09-621-976-56 94 4 US-09-621-976-56 94 4 US-09-621-978-5 95 4 US-09-621-978-5 96 3 US-08-409-373B-7 97 1 US-08-409-373B-7 98 6 4 US-09-483-665-1 98 99 98 99 98 98 98 98 98 98 98 98 98 9	47 4 US-09-513-783A-28 Sequence 47 4 US-09-430-656-30 Sequence 50 4 US-09-430-656-30 Sequence 50 4 US-09-430-656-28 Sequence 50 4 US-09-962-3608-4 Sequence 18 1 US-09-962-3608-4 Sequence 18 1 US-08-393-985-14 Sequence 18 1 US-08-393-985-14 Sequence 18 1 US-08-393-985-14 Sequence 18 1 US-08-393-985-14 Sequence 18 1 US-09-621-976-6274 Sequence 18 2 US-09-621-976-6256 Sequence 18 2 US-09-621-978-2565 Sequence 18 2 US-08-409-3738-2 Sequence 18 2 US-08-409-3738-2 Sequence 18 2 US-08-409-3738-2 Sequence 18 2 US-09-483-655-2 Sequence 18 2 US-09-483-655-8 Sequence 18 2 US-09-483-655-8 Sequence 18 2 US-09-483-655-8 Sequence 18 2 US-09-483-655-8 Sequence 18 2 US-09-82-3608-10 Sequence	٥	•	•	•	•			•	•	•				•	•	•	•	•
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ALIGNMENTS

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; Sequence 9, Applic
; Patent No. 5962637
                                                                                US-08-760-001-9
                                                                                                                 PILING DATE: 02-JUN-1995
ATTORNEY/AGENT INFORMATION:
NAME: ESMONT, ROBERT W.
REGISTRATION NUMBER: 32,893
REFERENCE/DOCKET NUMBER: 1581
TELECOMMUNICATION INFORMATION:
TELEPAX: 202-371-2600
TELEPAX: 202-371-2503
INFORMATION FOR SEQ ID NO: 9:
SEQUENCE CHARACTERISTICS:
LENGTH: 35 amino acidd
STRANDEDNESS: single
TOPOLOGY: linear
TOPOLOGY: linear
Query Match
Best Local S
Matches 33
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APPLICANT: Shone, Clifford C.
APPLICANT: Hallis, Bassam
APPLICANT: James, Benjamin A. F.
APPLICANT: Quinn, Conrad P.
APPLICANT: ON INVENTION: TOXIN ASSAY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ZIP: 20005-3934

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: PATENTION DATA:

APPLICATION NUMBER: US/08/760,001

FILING DATE: Herewith

FILING DATE: Herewith
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CORRESPONDENCE ADDRESS: Sterne, Kessler, Goldstein & ADDRESSEE: Sterne, Kessler, N.W., Suite
                                                                                                                                                                                                                                                                                                                                                                                                           CLASSIFICATION: 530
PRIOR APPLICATION NUMBER: PCT/GB95/01279
APPLICATION NUMBER: PCT/GB95/01279
                                                                                                      MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STREET: 1100 New CITY: Washington STATE: DC COUNTRY: USA
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                   Similarity
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98.3%; ilarity 94.3%; Conservative
Score 169; DB 2
pred. No. 6e-18;
0; Mismatches
                                                                                                                                                                                                                                                                                                                 1581.0120001
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                                         Length 35;
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; Sequence 9, Application US/09015960; Parcent No. 6043042; GENERAL INFORMATION: APPLICANT: Shone, Clifford C. APPLICANT: Hallis, Bassam APPLICANT: James, Benjamin A. F. APPLICANT: Quinn, Conrad P. TITLE OF INVENTION: TOXIN ASSAY NUMBER OF SEQUENCES: 11
                                                                                                                                                                                                                                                                                                                                                                                                               ; TOPOLOGY: linear; MOLECULE TYPE: peptide US-08-760-001-11
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US 09-015-960-9
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Best Local Similarity
Matches 33; Conserv
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Patent No. 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATTORNEY/AGENT INFORMATION:
NAME: ESHOON, ROBERT W.
REGISTRATION NUMBER: 32,893
REFERENCE/DOCKET NUMBER: 1581
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-2600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION BATE: Herewitt.
FILING DATE: Herewitt.
CLASSIFICATION: 530
PRIOR APPLICATION DATA: PCT/GB95/01279
APPLICATION NUMBER: PCT/GB95/01279
APPLICATION NUMBER: PCT/GB95/01279
APPLICATION DATE: 02-UN-1995
                   CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
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CORRESPONDENCE TOXIN ASSAY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: James, Benjamin A. F. APPLICANT: Quinn, Conrad P. TITLE OF INVENTION: TOXIN ASSAY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: a
                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
ADDRESSEE: Sterne, Kessler, Goldstein & Fox, P.L.L.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CITY: Washington
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                                                                                                                                                                                                                                                                                                      1 LSELDDRADALQAXASQFEXSAAKLKRKYWWKNLK 35
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5962637
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Hallis, Bassam
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Pred. No. 6e-18;
0; Mismatches
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Patent No. 6043042
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INFORMATION FOR SEQ ID NO:
                                                                                                               COUNTRY: USA
ZIP: 20005-3934
COMPUTER READABLE FORM:
COMPUTER: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                          STREET: LL.,
STREET: Washington
CITY: Washington
CTATE: DC
TTATE: TTATE
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LENGTH: 35 amino acids
TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Quinn, TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE:
ATTORNBY/AGENT INFORMATION:
NAME: ESEMOND, ROBERT W.
REGISTRATION NUMBER: 32,893
REFERENCE/DOCKET NUMBER: 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
ATTORNEY/AGENT INFORMATION:
                                                                  CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                  APPLICATION NUMBER:
                                                                                                    APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity 94.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US/09/015,960
                                                                                                                                                                                                                                                                                                          ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 LSELDDRADALQAXASQFEXSAAKLKRKYWWKNLK 35
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Application US/09015960
                                                                                                                                                                                                                                                                                            E: Sterne, Kessler, Goldstein & Fox, P.L.L.C. 1100 New York Ave., N.W., Suite 600
                                                                                                                                                                                                                                                                                                                                                                                                             Shone, Clifford C.
Hallis, Bassam
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1100 New York Ave., N.W.,
                                                                                                                                                                                                                                                                                                                                                                                                 James, Benjamin A. F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       202-371-2600
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94.3%;
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                                  08/760,001
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Pred. No. 6e-18;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 3;
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US-09-015-960-11
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US-09-534-572-9
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Best Local Sim:
Matches 33;
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TELEPAX: 202-371-2543
INFORMATION FOR SEQ ID NO: 1
SEQUENCE CHARACTERISTICS:
LENGTH: 35 amino acids
TYPE: amino acid
TYPE: amino acids
TYPE: amino acids
TYPE: amino acids
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APPLICANT: Shone, Clifford C.
                                                                                                                       TELEFAX: 202-371-2543
INFORMATION FOR SEQ ID NO: 9:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US/09/
FILING DATE: Herewith
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 09/015
APPLICATION DATA:
FILING DATE: 30-DATA:
APPLICATION NUMBER: 08/760
FILING DATE: 30-DEC-1996
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MOLECULE TYPE:
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REGISTRATION NUMBER: 158
REFERENCE/DOCKET NUMBER: 158
REFERENCE/DOCK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTMARE: PatentIn Release #1.0,
                                                                                                                                                                                                       APPLICATION NOTICE 1995
FILING DATE: 02-JUN-1995
ATTORNEY/AGENT INFORMATION:
NAME: Esmond, Robert W.
NAME: Esmond, Robert W.
150
PERCISTRATION NUMBER: 32,15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 30-DEC-
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
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                            LENGTH: 35 amino acids TYPE: amino acid STRANDEDNESS: single
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Similarity 94.3%;
33; Conservative
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IT: Quinn, Conrad P.
INVENTION: TOXIN ASSAY
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Pred. No. 6e-18;
0; Mismatches
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                                                                                                                          ; MOLECULE TYPE: US-09-534-572-11
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Patent No.
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                                                              Matches
                                                                           Query Match
Best Local Similarity
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APPLICATION NUMBER: 09/015,96

FILING DATE: 30-JAN-1998

PRIOR APPLICATION DATA:

APPLICATION NUMBER: 08/760,00

FILING DATE: 30-DEC-1996

PRIOR APPLICATION DATA:

APPLICATION NUMBER: PCT/GB95/

APPLICATION NUMBER: PCT/GB95/

FILING DATE: 02-UN-1995

ATTORNEY/AGENT INFORMATION:

NAME: Esmond, Robert W.

REGISTRATION NUMBER: 32,893

REGESTRATION NUMBER: 32,893
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TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-2600
TELEPAX: 202-371-2543
INFORMATION FOR SEQ ID NO: 11:
SEQUENCE CHARACTERISTICS:
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MEDIUM TYPE: Floppy
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APPLICANT: Hallis, Bassam
APPLICANT: James, Benjamin A. F.
APPLICANT: Quinn, Conrad P.
APPLICANT: Quinn, CONTAIN ASSAY
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release
                                                                                                                                                  TYPE: amino - sin
STRANDEDNESS: sin
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33; Conservative
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6337386
                  1 LSELDDRADALQAXASQFEXSAAKLKRKYWWKNLK 35
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                                                                                                                                                                                    amino acid
LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK 35
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                                                              Conservative
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Pred. No. 6e-18;
0; Mismatches
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                                                              Score 169; DB 3; Pred. No. 6e-18; 0; Mismatches
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Sequence 9, Application US/09962360B
Patent No. 6762280
GENERAL INFORMATION:
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US-09-570-023-8
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                                                                                                                                                                                                                                                                     Query Match
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CURRENT APPLICATION NUMBER: US/09/570,023
CURRENT FILING DATE: 2000-05-12
NUMBER OF SEQ ID NOS: 14
SOFTWARE: Patentin Ver. 2.1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Patent No.
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CURRENT FILING DATE: 2000-05-12
PRIOR APPLICATION NUMBER: 60/134,446
PRIOR FILING DATE: 1999-05-17
NUMBER OF SEQ ID NOS: 26
SOFTWARE: Patentin Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: GORDON, RICHARD K.
APPLICANT: MOORAD, DEBBIE R.
APPLICANT: MOORAD, DEBBIE R.
APPLICANT: DOCTOR, BHUPENDRA P.
TITLE OF INVENTION: BUFORIN I AS A SPECIFIC INHIBITOR AND THERAPEUTIC AGENT
TITLE OF INVENTION: FOR BOTULINUM TOXIN B AND TETANUS NEUROTOXINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: MOORAD, DEBORAH R.
APPLICANT: DOCTOR, BHUPENDRA P.
APPLICANT: GARCIA, GREGORY E.
TITLE OF INVENTION: PREVINS AS SPECIFIC INHIBITORS AND THERAPBUTIC
TITLE OF INVENTION: FOR BOTULINUM TOXIN B AND TETANUS NEUROTOXINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: GARCIA, APPLICANT: GORDON
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ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                               TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                            FEATURE:
                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Artificial Sequence
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                                                                                                                                                                                                                                                      98.3%;
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                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                     Score 169; DB 4
Pred. No. 7e-18;
0; Mismatches
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US-08-760-001-8
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 8,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Patent No.
                                                                                                                                                                                                                                                                                                   COUNTRY: USA
ZIP: 2005-3934
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Schmidt, James J.
APPLICANT: Stafford, Robert G.
APPLICANT: Stafford, Robert G.
TITLE OF INVENTION: High Throughput Assays for the Proteolytic Activities of Clostridi
TITLE OF INVENTION: Neurotoxins
FILE REFERENCE: 003/224/SAP
CURRENT APPLICATION NUMBER: US/09/962,360B
CURRENT FILING DATE: 2002-08-19
PRIOR FILING DATE: 2002-08-19
PRIOR FILING DATE: 2001-09-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-2600
TELEPAX: 202-371-2543
TELEFAX: 202-371-2543
INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: PRT
ORGANISM: Artificial sequence
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LOCATION: 1 - OTHER INFORMATION: Xaa at 1 is N-fluresceinyl-glycine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY: misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OTHER INFORMATION: synthetic peptide chosen such that FEATURE:
                                                                                                                                         PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/GB95/01279
FILING DATE: 02-JUN-1995
ATTORNEY/AGENT INFORMATION:
NAME: Esmond, Robert W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: TOXIN ASSAY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ENGTH: 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
                                                                                                   NAME: Esmond, Robert W. REGISTRATION NUMBER: 32, REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                             APPLICATION NUMBER: US
FILING DATE: Herewith
                                                                                                                                                                                                                                              CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          33;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        E: Sterne, Kessler, Goldstein & Fox, 1100 New York Ave., N.W., Suite 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Shone, Clifford C.
Hallis, Bassam
James, Benjamin A. F.
Quinn, Conrad P.
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                                                                                                                                                                                                                                                                                                                        Release #1.0,
                                                                                                                                                                                                                                                                                    US/08/760,001
                                                                                                                        32,893
                                                                                                       1581.0120001
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Pred. No. 7
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                                                                                                                                                                                                                                                                                                                            Version
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; TOPOLOGY: linear
; MOLECULE TYPE: peptide
US-08-760-001-8
RESULT 12
US-09-534-572-8
; Sequence 8, Application US/09534572
; Patent No. 6337386
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US-09-015-960-8
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Best Local Similarity
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                                                                                                                                                                         Best Local
Matches
                                                                                                                                                                                                      Query Match
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APPLICANT: Shone,
APPLICANT: Hallis,
                                                                                                                                                                                                                                                                                                                                                     TELEPHONE: 202-371-260
TELEFAX: 202-371-2543
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
LENGTH: 62 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/015,960
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Shone, Clifford C.
APPLICANT: Hallis, Bassam
APPLICANT: James, Benjamin A. F.
APPLICANT: Quinn, Conrad P.
APPLICANT: TOXIN ASSAY
                                                                                                                                                                                                                                                                                                                                                                                      NAME: Esmond, Robert W.
REGISTRATION NUMBER: 32,893
REFERENCE/DOCKET NUMBER: 15
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-2600
                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Esmond, Robert W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CLASSIFICATION:
PRIOR APPLICATION NUMBER:
                                                                                                                                                                                                                                                         MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES: 1
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                                                                                                                                                                         l Similarity
33; Conserv
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nilarity 94.3%;
Conservative
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nilarity 94.3%;
Conservative
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Pred. No. 1.1e-17;
0; Mismatches 2;
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Pred. No. 1.1e-17
                                                                                                                                                                                                                                                                                                                                                                                                                         1581.0120001
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                                                                                                                                                                                                        Length 62;
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                                                                                                                      US-08-409-373B-4
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REGISTRATION NUMBER: 1581
REFERENCE/DOCKET NUMBER: 1581
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-2640
INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
LENGTH: 62 amino acids
TYPE: amino acids
Sequence 4, Application US/08409373B
Patent No. 5585240
GENERAL INFORMATION:
APPLICANT: Stuart, Susan G.
APPLICANT: Hawkins, Phillip R.
APPLICANT: Seilhamer, Jeffrey J.
                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                               Query Match
Best Local :
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ZIP: 2005-3934

COMPUTER READABLE FORM:
MEDIUM TYPE: Ploppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/534,572
FILING DATE: Herewith
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 02-JUN-1995
ATTORNEY/AGENT INFORMATION:
NAME: Esmond, Robert W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 09/0.
FILING DATE: 30-JAN-1998
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: James, Benjamin A. F.
APPLICANT: Quinn, Conrad P.
AITLE OF INVENTION: TOXIN ASSAY
                                                                                                                                                                                                                                                                                                                                                                        STRANDEDNESS: Si
TOPOLOGY: linear
MOLECULE TYPE: pep'
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Shone, Clifford C. APPLICANT: Hallis, Bassam
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STREET: 1100
CTTY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADDRESSEE: Sterne, Kessler, Goldstein & Fox, P.L.L.C. STREET: 1100 New York Ave., N.W., Suite 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER:
                                                                                                                                                                                                     28
                                                                                                                                                                                                                                                                           33;
                                                                                                                                                                                                                        1 LSELDDRADALQAXASQFEXSAAKLKRKYWWKNLK 35
                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                 LSELDDRADALQAGASQFESSAAKLKRKYWWKNLK 62
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                                                                                                                                                                                                                                                                                               98.3%;
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                                                                                                                                                                                                                                                                               Score 169; DB 3;
Pred. No. 1.1e-17;
0; Mismatches 2;
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                                                                                                                                                                                                                                                                                                                 Length 62;
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APPLICANT: Seilhamer, Jeffrey J.
TITLE OF INVENTION: CELLUBREVIN HOMOLOG
NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:

0

STREET: 3174 Po: CITY: Palo Alto STATE: CA

ADDRESSEE:

E: Incyte Pharmaceuticals, Inc 3174 Porter Drive

COUNTRY: U.S.

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US+08-409-373B-4
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX: 415-852-0195
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MOLECULE TYPE: pointmentare source:
LIBRARY: GenBar
CLONE: X76199
                           REGISTRATION NUMBER: 33,954
REFERENCE/DOCKET NUMBER: PF
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-855-0555
                                                                                                          CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Steart, Susan G.
APPLICANT: Hawkins, Phillip R.
APPLICANT: Seilhamer, Jeffrey J.
TITLE OF INVENTION: CELLUBREVIN HOMOLOG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 23-MAR-1995
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: CINUMBER OF SEQUENCES: CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEPHONE: 415-855-0555
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CURRENT APPLICATION DATA:
                                                                                                                                                   COMPUTER: IBM COMPUTER: DOS
OPERATING SYSTEM: DOS
SOFTWARE: FAST-SEQ Version 1.5
CURRENT APPLICATION DATA:
CURRENT APPLICATION DATA:
US/08/409,373B
                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
COMPUTER: IBM Compat
                                                                                                                                                                                                                                                                                                                       STREET: 3174 Por
CITY: Palo Alto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME: Luther, Barbara J
REGISTRATION NUMBER: 33,
REFERENCE/DOCKET NUMBER:
                 TELEPHONE:
                                                                                              NAME: Luther, Barbara
                                                                                                                                             APPLICATION NUMBER: US/0 FILING DATE: 23-MAR-1995
                                                                                                                                                                                                                                                                                           COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          60 LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK 94
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                                                                                                                                                                                                                                                                                                                                            E: Incyte Pharmaceuticals, Inc. 3174 Porter Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          116 amino acids
               415-852-0195
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Pred. No. 2.3e-17;
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; LENGTH: 116 amino acids
; TYPE; amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-393-985-16
В
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Best Local Similarity 94.3
Matches 33; Conservative
                                                               Matches
                                                                            Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 16,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Patent No.
                                                                                                                                                                                   TELERAX: (415) 324-0960 INFORMATION FOR SEQ ID NO: 16: SEQUENCE CHARACTERISTICS: LENGTH: 116 amino acids
                                                                                                                                                                                                                                                              FILING DATE:
CLASSIFICATION: 435
ATTORNEY_AGENT INFORMATION:
NAME: Sholtz, Charles K.
REGISTRATION NUMBER: 38,615
REFERENCE/DOCKET NUMBER: 8600
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
APPLICANT: Schell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ..: 116 amino acids
sype: amino acid
syrandeness: sir-
TOPOLOGY: 1:
(OLECULP
                                                                                                                                                                                                                                                                                                                                                                        ZIP: 94306
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/393,985
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LENGTH: 116 amino acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES:
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CLONE: X76199
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CITY: Palo Alto
                                                                                                                                                                                                                                                  TELEPHONE:
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                             1 LSELDDRADALQAXASQFEXSAAKLKRKYWWKNLK 35
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LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK 94
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                                                               Conservative
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94.3%;
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                                                                            98.3%;
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                                                           Score 169; DB 1;
Pred. No. 2.3e-17;
0; Mismatches 2;
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Pred. No. 2.3e-17;
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                                                                                         Length 116;
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Search completed: November Job time: 24.4375 secs

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Minimum DB
Maximum DB
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172
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Maximum Match 100%
Listing first 45 summaries
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cgn2_6/ptodata/2/pubpaa/USO_NEW_PUB.pep:*
cgn2_6/ptodata/2/pubpaa/USO6_NEW_PUB.pep:*
cgn2_6/ptodata/2/pubpaa/USO6_NEW_PUB.pep:*
cgn2_6/ptodata/2/pubpaa/USO7_NEW_PUB.pep:*
cgn2_6/ptodata/2/pubpaa/USO7_NEW_PUB.pep:*
cgn2_6/ptodata/2/pubpaa/USO8_NEW_PUB.pep:*
cgn2_6/ptodata/2/pubpaa/USO8_NEW_PUB.pep:*
cgn2_6/ptodata/2/pubpaa/USO8_NEW_PUB.pep:*
cgn2_6/ptodata/2/pubpaa/USO9A_PUBCOMB.pep:*
cgn2_6/ptodata/2/pubpaa/USO9A_PUBCOMB.pep:*
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6/ptodata/2/pubpaa/US07
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164.308 Million cell updates/sec
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

No. Score	1 1	_	3	_							11 1		
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ID	US-09-962-360B-9	US-09-942-024-4	US-09-942-024-17	US-09-942-024-18	US-09-942-098-4	US-09-942-098-17	US-09-942-098-18	US-10-357-028-10	US-10-261-161-11	US-10-261-161-12	US-10-261-161-13	US-09-293-670-55	US-09-962-360B-3
Description	Sequence 9, 1		17,		Seguence 4, i	Sequence 17,	Sequence 18,	Sequence 10,	Sequence 11,		Sequence 13,	Sequence 55,	Sequence 3, 1
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167 97.1 182 14 US-10-30-70-20-11 167 97.1 184 10 US-09-942-024-19 167 97.1 114 10 US-09-942-024-19 167 97.1 114 10 US-09-942-036-19 164 95.3 100 14 US-10-357-028-6 164 95.3 118 10 US-09-942-024-56 164 95.3 118 10 US-09-942-024-56 164 95.3 318 10 US-09-923-670-52 162 94.2 35 10 US-09-923-608-4 109 14 US-10-367-493-6364 109 US-09-942-024-60 10 US-09-942-024-61 149 86.6 40 10 US-09-942-024-61 149 86.6 40 10 US-09-942-098-57 149 86.6 40 10 US-09-942-098-57 149 86.6 40 10 US-09-942-098-57 149 86.6 40 10 US-09-942-098-51 149 86.6 40 10 US-09-942-098-51 149 86.6 40 10 US-09-942-098-61 149 86.6 40 10 US-09-942-098-61 149 86.6 40 10 US-09-942-098-61 149 86.6 40 15 US-0-261-161-83 149 86.6 40 15 US-0-261-161-
7.1 114 10 US-09-942-024-19 7.1 114 10 US-09-942-098-19 7.1 114 10 US-09-942-098-19 7.1 114 10 US-09-942-098-19 7.1 114 11 US-09-942-098-65 5.3 100 14 US-10-357-028-6 5.3 118 10 US-09-942-098-96 5.3 118 10 US-09-942-098-66 5.3 347 14 US-10-100-957A-30 5.3 347 14 US-10-100-957A-30 5.3 347 14 US-10-100-957A-30 5.3 350 10 US-09-923-670-52 6.6 40 10 US-09-942-024-68 6.6 40 10 US-09-942-024-69 6.6 40 10 US-09-942-024-69 6.6 40 10 US-09-942-098-67 6.6 40 10 US-09-942-098-69 6.6 40 15 US-10-261-161-83 6.6 40 10 US-09-942-098-61 6.6 40 15 US-10-261-161-83
82 14 US-10-357-028-11 114 10 US-09-942-024-15 114 10 US-09-942-024-15 114 10 US-09-942-028-16 114 10 US-10-357-028-6 10 314 US-10-357-028-9 117 16 10 US-10-357-028-9 117 16 10 US-09-942-024-96 118 10 US-09-942-024-6 10 US-09-942-098-6 10 US
US-09-942-024-03 US-09-942-024-19 US-10-261-161-14 US-10-357-028-6 US-10-357-028-6 US-10-357-028-9 US-10-357-028-9 US-10-261-161-09-94 US-10-100-957A-30 US-09-942-034-60 US-09-942-024-60 US-09-942-024-60 US-09-942-024-60 US-09-942-024-60 US-09-942-024-60 US-09-942-024-60 US-09-942-024-60 US-09-942-098-57 US-09-942-098-50 US-09-942-098-50 US-09-942-098-61 US-09-942-098-61 US-09-942-098-61 US-09-942-098-61 US-09-942-098-65 US-10-261-161-83 US-10-261-161-85 US-10-261-161-85 US-10-261-161-85 US-10-261-161-85 US-09-942-098-61 US-09-942-098-61 US-09-942-098-61 US-09-942-098-61 US-09-942-098-61 US-10-261-161-85 US-10-261-161-85 US-10-261-161-85
10-261-161-85

ALIGNMENTS

RESULT 1 US-09-962-360B-9

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APPLICANT: Stafford, Names J.
TITLE OF INVENTION: High Throughput Assays for TITLE OF INVENTION: Neurotoxins
FILE REFERENCE: 003/224/SAP
CURRENT APPLICATION NUMBER: US/09/962,360B
CURRENT FILING DATE: 2002-08-19
PRIOR APPLICATION NUMBER: US 60/235,050
PRIOR FILING DATE: 2001-09-25
INUMBER OF SEQ ID NOS: 12
SOFTWARE: Apple Macintosh Microsoft Word 6.0
SEQ ID NO 9
TENORUM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; Sequence 9, Application US/09962360B ; Publication No. US20030077685A1 ; GENERAL INFORMATION:
                           8
                                                                                                                                                      US-09-962-360B-9
                                                                       Query Match
Best Local S
Matches 33
                                                                                                                                                                                        FEATURE:
OTHER INFORMATION: synthetic peptide chosen such that it
FEATURE:
NAME/KBY: misc_feature
LOCATION: 1
LOCATION: 1
                                                                                                                                                                                                                                                                                        LENGTH: 42
TYPE: PRT
ORGANISM: Artificial sequence
                                                                                                                                                                           OTHER INFORMATION: Xaa at 1 is N-fluresceinyl-glycine
                                                                         . Similarity 33; Conserv
                    LSELDDRADALQAXASQFEXSAAKLKRKYWWKNLK 35
LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK 38
                                                                       98.3%;
ilarity 94.3%;
Conservative (
                                                                         Score 169; DB 10; pred. No. 6.6e-16; 0; Mismatches 2;
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RESULT 4
US-09-942-024-18
Sequence 18, Application US/09942024
Publication No. US20030143650A1
GENERAL INFORMATION:
APPLICANT: Steward, Lance E.
APPLICANT: Fernandez-Salas, Ester
APPLICANT: Apoki, Kei Roger
TITLE OF INVENTION: Fret Protease Assays For Botulinum
FILE REFERENCE: P-AR 4803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             В
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US-09-942-024-17
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Matches
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SEQ ID NO 17
LENGTH: 116
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Best Local Similarity
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APPLICANT: Fernandez-Salas, Ester
APPLICANT: April April April April Applicant: April Applicant: April Applicant: April Applicant: April Applicant: Applicant:
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APPLICANT: Acki, Kei Roger
TITLE OF INVENTION: Fret Protease Assays For Botulinum
TITLE OF INVENTION: Serotype A/E Toxins
FILE REFERENCE: P-AR 4803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/09/942,024
CURRENT FILING DATE: 2001-08-28
NUMBER OF SEQ ID NOS: 96
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CURRENT FILING DATE: 2001-08-28
NUMBER OF SEQ ID NOS: 96
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ORGANISM: Homo sapiens
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Pred. No. 1.8e-15;
0; Mismatches 2;
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Pred. No. 1.8e-15;
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; TYPE: PRT ; ORGANISM: Mus musculus US-09-942-098-17
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US-09-942-098-17
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                                                                                                                                                                                    GENERAL INFORMATION:
APPLICANT: Steward, Lance E.
APPLICANT: Fernandez-Salas, Ester
APPLICANT: Aoki, Kei Roger
TITLE OF INVENTION: Fret Protease Assays For Clostridial
TITLE OF INVENTION: Toxins
FILE REFERENCE: F-AR 4802
CURRENT APPLICATION NUMBER: US/09/942,098
CURRENT FILING DATE: 2001-08-28
                                                                                                                 NUMBER OF SEQ ID NOS: 96
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 17
LENGTH: 116
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CURRENT FILING DATE: 2001-08-28
NUMBER OF SEQ ID NOS: 96
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 4
LENGTH: 116
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GENERAL INFORMATION: Steward, Lance B.
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Best Local Similarity
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Publication No. US20030143651A1
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SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 18
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                               Query Match
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APPLICANT: Aoki Kei Roger
TITLE OF INVENTION: Fret Protease Assays For Clostridial
TITLE OF INVENTION: Toxins
FILE REFERENCE: P-AR 4802
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CURRENT FILING DATE: 2001-08-28
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ORGANISM: Bos taurus
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Local Similarity 94.
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                98.3%;
Score 169; DB 10;
Pred. No. 1.8e-15;
0; Mismatches 2;
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Pred. No. 1.8e-15;
0; Mismatches 2;
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Pred. No. 1.8e-15;
0; Mismatches 2;
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LSELDDRADALQAXASQFEXSAAKLKRKYWWKNLK 35

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RESULT 7
US-09-942-098-18
; Sequence 18, Application US/09942098
; Publication No. US20030143651A1
; GENERAL INFORMATION:
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; TYPE: PRT
; ORGANISM: Bos taurus
US-09-942-098-18
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APPLICANT: Fernandez-Salas, Ester
APPLICANT: Fernandez-Salas, Ester
APPLICANT: Fernandez-Salas, Ester
APPLICANT: Fernandez-Salas, Ester
APPLICANT: Fret Protease Assays For Clostridial
TITLE OF INVENTION: Toxins
FILE REFERENCE: P-AR 4802
CURRENT APPLICATION NUMBER: US/09/942,098
CURRENT APPLICATION NUMBER: US/09/942,098
CURRENT FILING DATE: 201-08-28
NUMBER OF SEQ ID NOS: 96
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 18
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                                                        APPLICATION NUMBER: US/09/483,665
FILING DATE: Herewith
APPLICATION NUMBER: 08/621,018
FILING DATE: March 22, 1996
APPLICATION NUMBER: 08/409,373
FILING DATE: March 23, 1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Murry, Lynn E.
TITLE OF INVENTION: CELLUBREVIN HOMOLOGS
NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                             CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/357,028
FILING DATE: 29-Jan-2003
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                     ZIP: 94304
COMPUTER READABLE FORM:
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ADDRESSEE: Incyte
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Hawkins, Phillip R.
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33; Conserv
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OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ Version 1.5
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CITY: Palo Alto
STATE: CA
NAME: Hamlet-Cox, Diana
REGISTRATION NUMBER: 33,302
REFERENCE/DOCKET NUMBER: PF-0029-2 DIV
                                                                                                                                                                                                                                                                                                                                                                     MEDIUM TYPE: Diskette
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3174 Porter Drive
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94.3%;
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Pred. No. 1.8e-15;
0; Mismatches 2;
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GENERAL INFORMATION:
APPLICANT: Fernandez-Salas, Ester
APPLICANT: Steward, Lance E.
APPLICANT: Steward, Lance E.
APPLICANT: Steward, Lance E.
TITLE OF INVENTION: Cell-Based Fluorescence Res
TITLE OF INVENTION: Transfer (FRET) Assays For
FILE REFERENCE: P-AR 4804
CURRENT APPLICATION NUMBER: US/10/261,161
CURRENT FILING DATE: 2002-09-27
NUMBER OF SEQ ID NOS: 109
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 11
LENGTH: 116
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US-10-261-161-11
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; Sequence 12, Application US/10261161
; Publication No. US20040072270A1
; GENERAL INFORMATION:
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APPLICANT: Fernandez-Salas, Ester
APPLICANT: Steward, Lance E.
APPLICANT: NOVENTION: Transfer (FRET) Assays For Clostridial Toxins
FILE REFERENCE: P-AR 4804
CURRENT APPLICATION NUMBER: US/10/261,161
CURRENT APPLICATION NUMBER: US/10/261,161
CURRENT FILING DATE: 2002-09-27
NUMBER OF SEO ID NOS: 109
SOFTWARE: FastSEQ for Windows Version 4.0
LEUGTH: 116
TYPE: PRT
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Publication No.
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Best Local Similarity
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INFORMATION FOR SEQ ID NO: 10:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT ORGANISM: Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                         1 LSELDDRADALQAXASQFEXSAAKLKRKYWWKNLK 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
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STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                           LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LIBRARY: GENBANK
CLONE: GI 433075
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEPHONE: 650-855-0555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ENGTH: 116 amino acids
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TO._US20040072270A1
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Pred. No. 1.8e-15;
0; Mismatches 2;
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Pred. No. 1.8e-15;
0; Mismatches 2;
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ORGANISM: Mus musculus

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RESULT 11
US-10-261-161-13
                                                                                                                 ; | FEATURE:
; | OTHER INFORMATION: Description of Artificial Sequence:
US-09-293-670-55
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                                                                                                                                                                                                            FILE REFERENCE: A68104/DJB/RMS/DAV
CURRENT APPLICATION NUMBER: US/09/293,670
CURRENT FILING DATE: 199-04-16
NUMBER OF SEQ ID NOS: 57
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 55
                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 55, Application US/09293670
Publication No. US20030190684A1
GENERAL INFORMATION:
                                             Matches
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                                                               Query Match
Best Local
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Best Local
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Best Local
                                                                                                                                                                                                                                                                                                               APPLICANT: Fisher, Joseph
APPLICANT: Lorens, James
APPLICANT: Payan, Donald
APPLICANT: Rossi, Alexander
ITITLE OF INVENTION: Multiparameter Facs
TITLE OF INVENTION: Libraries
TITLE OF INVENTION: Libraries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Fernandez-Salas, Ester
|APPLICANT: Steward, Lance E.
|APPLICANT: Steward, Lance E.
|APPLICANT: Acki, Kei Roger
|TITLE OF INVENTION: Cell-Based Fluorescence Resonance Energy
|TITLE OF INVENTION: Transfer (FRET) Assays For Clostridial Toxins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/10/261,161
CURRENT FILING DATE: 2002-09-27
NUMBER OF SEQ ID NOS: 109
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                                                                                                                                                         TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM: Bos taurus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 116
                                                                                                                                                                                              ENGTH:
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                                               1 Similarity
33; Conser
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                 1 LSELDDRADALQAXASQFEXSAAKLKRKYWWKNLK 35
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Application US/10261161
No. US20040072270A1
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                                                 0;
                                            Score 169; DB 10;
Pred. No. 9.8e-15;
0; Mismatches 2;
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Pred. No. 1.8e-15;
0; Mismatches 2;
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Pred. No. 1.8e-15;
0; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                   Assays and to
                                                                                                                                                                                                                                                                                                                                   to Detect Alterations
Screen Small Molecule
                                                                               Length 607;
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                                                 Indels
                                                                                                                                  synthetic
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US-09-962-360B-3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 11, Application US/10357028 Publication No. US20030180931A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: Apple Macintosh Microsoft Word 6.0 SEQ ID NO 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 3, Application US/09962360B Publication No. US20030077685A1
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PRIOR FILING DATE: 2001-09-25
NUMBER OF SEQ ID NOS: 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Stafford, Robert G.
TITLE OF INVENTION: High Throughput Assays for the Proteolytic Activities of Clostridi
TITLE OF INVENTION: Neurotoxins
FILE REFERENCE: 003/224/SAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Schmidt, James J. APPLICANT: Stafford, Robert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/09/962,360B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCATION: 14 and 20 OTHER INFORMATION: Xaa at 14 is N(epsilon)-2,4-(dinitrophenyl)-lysine and Xaa at 20 iOTHER INFORMATION: (fluresceinyl)-cysteine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OTHER INFORMATION: synthetic peptide chosen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT ORGANISM: Artificial sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local
                                                                           CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/357,028
FILING DATE: 29-Jan-2003
PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                            ZIP: 94304
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                         Murry, Lynn E.
TITLE OF INVENTION: CELLUBREVIN HOMOLOGS
NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
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APPLICATION NUMBER: US/09/483,665 FILING DATE: Herewith APPLICATION NUMBER: 08/621,018 FILING DATE: March 22, 1996
                                                                                                                                                                                COMPUTER: IBM Compatible OPERATING SYSTEM: DOS
                                                                                                                                                                                                                                                                                                      CITY: Palo Alto
STATE: CA
                                                                                                                                                               SOFTWARE: FastSEQ Version 1.5
                                                                                                                                                                                                                           MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                     COUNTRY: U.S.
                                                                                                                                                                                                                                                                                                                                               ADDRESSEE: Incyte Pharmaceuticals, Inc
STREET: 3174 Porter Drive
                                                                                                                                                                                                                                                                                                                                                 STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LSELDDRADALQAXASQFEXSAAKLKRKYWWKNLK 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Stuart, Susan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hawkins,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Seilhamer, Jeffrey J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Phillip R.
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Pred. No. 7.6e-16;
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US-09-942-024-19
US-09-942-024-19
Sequence 19, Application US/09942024
Publication No. US20030143650A1
GENERAL INFORMATION:
APPLICANT: Steward, Lance E.
APPLICANT: Fernandez-Salas, Ester
APPLICANT: Acki, Kei Roger
TITLE OF INVENTION: Fret Protease Assays For Botulinum
TITLE OF INVENTION: Serotype A/E Toxins
FILE REFERENCE: P-AR 4803
CURRENT APPLICATION NUMBER: US/09/942,024
UURRENT FILING DATE: 2001-08-28
NUMBER OF SEQ ID NOS: 96
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 19
LENGTH: 114
TYPE: PRT
ORGANISM: Xenopus laevis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LIBRARY: GENBANK
CLONE: GI 606978
SEQUENCE DESCRIPTION: SEQ ID NO: 11:
US-10-357-028-11
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Search completed: November 1, 2004, 18:23:47 Job time : 70.0625 secs
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FILING DATE: MARCh 23, 1995
ATTORNEY/AGENT INFORMATION:
NAME: Hamlet-Cox, Diana
REGISTRATION NUMBER: 9F-0029-2 DIV
REFERENCE/DOCKET NUMBER: 9F-0029-2 DIV
TELECOMMUNICATION INFORMATION:
TELEPHONE: 650-849-8886
INFORMATION FOR SEQ ID NO: 11:
SEQUENCE CHARACTERISTICS:
LENGTH: 82 amino acids
TYPE: amino acids
TYPE: amino acids
TYPE: smino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: poptide
IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 97.1%; Score 167; DB 14; Length 82; Best Local Similarity 91.4%; Pred. No. 2.4e-15; Matches 32; Conservative 1; Mismatches 2; Indels
                                                                                                                                                                                   Query Match 97.1%; Score 167; DB 10; Best Local Similarity 91.4%; Pred. No. 3.4e-15; Matches 32; Conservative 1; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26 LSELDDRADALQAGASQFETSAAKLKRKYWWKNMK 60
                                                                                               58 LSELDDRADALQAGASQFETSAAKLKRKYWWKNMK 92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 LSELDDRADALQAXASQFEXSAAKLKRKYWWKNLK 35
                                                                                                                                    1 LSELDDRADALQAXASQFEXSAAKLKRKYWWKNLK 35
                                                                                                                                                                                                                                    Length 114;
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172
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(c) 1993 - 2004
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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ALIGNMENTS

synaptobrevin 2 - human (man) C;Species: Homo sapiens (man) C;Date: 14-Jun-1991 #sequence_revision 14-Jun-1991 #text_change 09-Jul-2004 C;Date: 14-Jun-1991 #sequence_revision 14-Jun-1991 #text_change 09-Jul-2004 C;Accession: B38315 R;Archer III, B.T.; Oezcelik, T.; Jahn, R.; Francke, U.; Suedhof, T.C. T.S. (Secondary 1970) Biol. Chem. 265, 17267-17273, 1990 A;Tile: Structures and chromosomal localizations of two human genes encoding synaptobrev A;Reference number: A38315; MUID:91009161; PMID:1976629 A;Accession: B38315

RESULT 2 JN0011 A;Molecule type: mRNA
A;Residues: 1-116 <SUE>
A;Residues: 1-116 <SUE>
A;Cross-references: UNIPROT:P19065; GB:X76199; NID:g433075; PIDN:CAA53792.1; PID:g433076
A;Experimental source: brain
R;Horikawa, H.P.M.; Saisu, H.; Ishizuka, T.; Sekine, Y.; Tsugita, A.; Odani, S.; Abe, T.
FEBS Lett. 330, 236-240, 1993
A;Title: A complex of rab3A, SNAP-25, VAMP/synaptobrevin-2 and syntaxins in brain presynal, A;Reference number: S36811; MUID:93374072; PMID:8365494
A;Accession: S36811 synaptobrevin 2 - bowlne
N,Alternate names: SNAP receptor
C;Species: Bos primigenius taurus (cattle)
C;Date: 31-Mar-1990 #sequence revision 31-Mar-1990 #text_change 09-Jul-2004
C;Date: 31-Mar-1990 #sequence revision 31-Mar-1990 #text_change 09-Jul-2004
C;Accession: JN0011; 836811; \bar{8}32363
R;Suedhof, T.C.; Baumert, M.; Perin, M.S.; Jahn, R.
Neuron 2, 1475-1481, 1989
N;Title: A synaptic vesicle membrane protein is conserved from mammals to D:
A;Reference number: A93413; MUID:90180466; PMID:2560644
A;Accession: JN0011 A;Gene: GDB:SYB2; VAMP-2 A;Cross-references: GDB:125293; OMIM:185881 A;Map position: 17pter-17p12 C;Superfamily: synaptobrevin C;Keywords: membrane trafficking; transmemb 망 Ś C; Genetics: A; Cross-references: A;Residues: A; Status: preliminary A; Molecule type: DNA Query Match Best Local S Matches 33 60 LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK υ 3 1 LSELDDRADALQAXASQFEXSAAKLKRKYWWKNLK 35 membrane trafficking; transmembrane protein 1-116 <ARC> Similarity Conservative UNIPROT: P19065; GB: M36205; 98.3%; 94.3%; Score 169; DB 2; Pred. No. 3e-16; 0; Mismatches 2 GB:J05611; NID:g338630; PIDN:AAA60604.1; I 94 2 Length 116; from mammals to Drosophila. 0, Gaps 0;

48-79 < HOR>

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cellubrevin - rat
C(Species: Rattus norvegicus (Norway rat)
C(Species: Rattus norvegicus (Norway rat)
C(Species: 10-Dec-1993 #sequence_revision 10-Nov-1995 #text_change (C) Accession: S35077
R;McMahon, H.T.; Ushkaryov, Y.A.; Edelmann, L.; Link, E.; Binz, (Neture 364, 346-349, 1993
A;Title: Cellubrevin is a ubiquitous tetanus-toxin substrate home A;Reference number: S35077; MUID:93323976; PMID:8332193
A;Accession: S35077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Experimental source: brain R;Soellner, T.; Whiteheart, S.W.; Brunner, M.; Erdjument-Bromage, H.; Geromanos, Nature 362, 318-324, 1993
A;Title: SNAP receptors implicated in vesicle targeting and fusion.
A;Reference number: S32360; MUID:93205116; PMID:8455717
A;Recession: S32363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        synaptobrevin 2 - rat
N,Alternate names: vesicle-associated membrane protein 2
C,Species: Rattus norvegicus (Norway rat)
C;Date: 01-Jun-1990 #sequence_revision 01-Jun-1990 #text_change 09-Jul-2004
C;Accession: B34288; S27125
R;Elferink, L.A., Trimble, W.S.; Scheller, R.H.
J. | Biol. Chem. 264, 11061-11064, 1989
A;Title: Two vesicle-associated membrane protein genes are differentially expressed A;Reference number: A34288; MUID:89291844; PMID:2472388
A;Accession: B34288
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Cross-references: UNIPROT:Q64357; GB:M24105; GB:J04827; NID:g207626; PIDN:AAA42321.1; R;Schiavo, G.; Benfenati, F.; Poulain, B.; Rossetto, O.; de Laureto, P.P.; DasGupta, B.; Nature 359, 832-835, 1992
Nature 359, 832-835, 1992
A;Title: Tetanus and botulinum-B neurotoxins block neurotransmitter release by proteoly A;Reference number: S27125; MUID:93063293; PMID:1331807
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A; Molecule type:
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A; Residues: 1-116 <ELF>
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Matches 33
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;Residues: 31-47,'X',49-55,'X',57-59;67-82 <SOE:
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Pred. No. 3e-1
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3e-16;
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RESULT A32146

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A; Map position: 12p-12p
C; Superfamily: synaptobrevin
C; Keywords: membrane
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Molecule type: mRNA
A;Residues: 1-103 <MCM>
A;Cross-references: UNIPROT:Q64271; GB:S63830; NID:g388482; PIDN:AAB27554.1;
C;Superfamily: synaptobrevin
                                                                                                                                                                                                                                                                                                      R;Archer III, B.T.; Oezcelik, T.; Jahn, R.; Francke, U.; J. Biol. Chem. 265, 17267-17273, 1990
A;Title: Structures and chromosomal localizations of two A;Reference number: A38315; MUID:91009161; PMID:1976629
A;Accession: A38315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Molecule type: mRNA
A;Residues: 1-118 <GOU>
A;Cross-references: UNIPROT:P23763; EMBL:Z48924; NID:g758107; PIDN:CAA88760.1; PID:g75810
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A;Residues: 1-118 <ARC>
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                                                                                                                                                                                                                                                                                                                                                                                                         ynaptobrevin 1 - human
;Species: Homo sapiens (man)
;Date: 14-Jun-1991 #sequence_revision 14-Jun-1991 #text_change 09-Jul-2004
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Homo sapiens (man)
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32; Conserv
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32; Conserv
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                                LSELDDRADALQAXASQFEXSAAKLKRKYWWKNLK
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Pred. No. 1.3e-15;
                                                                                                                                      transmembrane protein
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Pred. No. 1.5e-15;
                                                                                   Score 164; DB 2;
Pred. No. 1.5e-15;
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C;Species: Rattus norvegicus (Norway rat)
C;Date: 01-Jun-1990 #sequence_revision 01-Jun-1990 #text_change 09-Jul-2004
C;Accession: A34288
R;Elferink, L.A.; Trimble, W.S.; Scheller, R.H.
J. Biol. Chem. 264, 11061-11064, 1989
A;Title: Two vesicle-associated membrane protein genes are differentially expressed A;Accession: A34288; MUID:89291844; PMID:2472388
A;Scatus: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 8
A34288
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A;Residues: 1-120 <TR: A;Residues: 1-120 <TR: A;Residues: NIPROT:P13701; EMBL:J03777; NID:g213245; PIDN:AAA49286.1; PID:g2132
A;Cross-references: UNIPROT:P13701; EMBL:J03777; NID:g213245; PIDN:AAA49286.1; PID:g2132
C;Superfamily: synaptobrevin
C;Keywords: membrane protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             vesicle-associated membrane protein 1 - Pacific electric ray (Species: Torpedo californica (Pacific electric ray) C;Date: 21-May-1990 #sequence_revision 21-May-1990 #text_change 09-Jul-2004 C;Accession: A32146 R;Trimble, W.S.; Cowan, D.M.; Scheller, R.H. Proc. Natl. Acad. Sci. U.S.A. 85, 4538-4542, 1988 Proc. Natl. Acad. Sci. U.S.A. 85, 4538-4542, 1988 A;Ritle: VAMP-1: a synaptic vesicle-associated integral membrane protein. A;Reference number: A32146; MUID:88248054; PMID:3380805
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A;Cross-references: UNIPROT:Q63666;
C;Superfamily: synaptobrevin
C;Keywords: membrane protein
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                                                                                                                                                                                                                                                  A;Description: Conservation of A;Reference number: S40153 A;Accession: S40153
                                                                                                                                                                                                                                                                                          R;Bommert, K.; Kistner, A.; Hasermann, E.; Betz, H. submitted to the EMBL Data Library, August 1993 A;Description: Conservation of primary structure and
                                                                                                                                                                                                                                                                                                                                                                                                          synaptobrevin
C;Species: Lol
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A; Residues: 1-125 < BOM>
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C;Species: Rattus norvegicus (Norway rat)
                                               Query Match
Best Local S
Matches 29
                                                                                                                                                                                                                                                                                                                                                                                ynaptobrevin - longfin squid
;Species: Loligo pealeii (longfin squid)
;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Molecule type: mRNA
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                                                                                                                                  Cross-references: UNIPROT:P47194; EMBL:X74748; NID:g437855; PIDN:CAA52766:1; PID:g4378
Superfamily: synaptobrevin
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                                                 29;
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                                                 Conservative
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                                               Score 154; DE
Pred. No. 3.8e
2; Mismatches
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Pred. No. 1.4e-14;
0; Mismatches 4
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Pred. No. 1.5e-15;
0; Mismatches 3
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                                                                       DB 2;
.8e-14;
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C;Species: Mus musculus (house mouse)
C;Date: 10-Dec-1993 #sequence_revision 27-Feb
C;Accession: $35554
R;Patarnello, T; Bargelloni, L; Rossetto, O
Nature 364, 581-582, 1993
A;Title: Neurotransmission and secretion.
A;Reference number: $35552; MUID:93354436; PM
A;Accession: $35554
A;Status: preliminary
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RESULT 12
S35554
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S35555
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                                                                                                                                                                                                       A;Cross-references: UNIPROT:Q7LZ64
C;Superfamily: synaptobrevin
C;Keywords: membrane trafficking; transmembrane protein
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C;Date: 10-Dec-1993 #sequence_revision 26-Jul-1996 #text_change 09-Jul-2004
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A;Introns: 39/3
C;Superfamily: synaptobrevin
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A;Cross-references: UNIPROT:002495; EMBL:AF067949; PIDN:AAC19234.1; GSPDB:GN00023; CESP:7
A:Experimental source: strain Bristol N2; clone T10H9
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                                                                                                                                                                                                                                                                                                                                                                                                                  vesicle-associated membrane protein 2 - chicken
C; Species: Gallus gallus (chicken)
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A; Residues: 1-32 < PAT>
                                                                                                                                                                                                                                                                                                                                                Nature 364, 581-582,
                                                                                                                                                                                                                                                                                                                                                               R; Patarnello,
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25; Conserv
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                                                                                                                                                    66.9%;
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                                                                                                                                   Score 115; DB 2; I Pred. No. 2.4e-09; 0; Mismatches 2;
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Pred. No. 6.3e-14;
2; Mismatches 4
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vesicle-associated membrane protein 2 - mouse (fragment)

27-Feb-1997 #text_change 09-Jul-2004

PMID: 8350916

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Schiavo,

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Montecucco,

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RESULT
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A; Residues: 1-32 < PAT>
A; Cross-references: UNIPROT: 035619
C; Superfamily: synaprobrevin
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N;Alternate names: vesicle-associated membrane protein B
C;Species: Drosophila melanogaster
C;Species: Drosophila melanogaster
C;Date: 10-Mar-1994 #sequence_revision 10-Mar-1994 #text_change 09-Jul-2004
C;Accession: JC1522
R;Chin, A.C.; Burgess, R.W.; Wong, B.R.; Schwarz, T.L.; Scheller, R.H.
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A;Title: Differential expression of transcripts from syb, a Drosophila melanogaster gene
A;Reference number: JC1521; MUID:94010306; PMID:8406010
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A;Reference number: S35552; MUID:93354436; PMID:8350916
A;Accession: S35552
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A;Cross-references: FlyBase:FBgn0003660
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A;Note: the authors translated the codon AAG for residue 101 as Asn and CGC for residue
C;Comment: Gene syb comprises five exons. Splicing exons 1.2.3.4.5 results in synaptobre
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Best Local Similarity 92.6
Matches 25; Conservative
                                                                                                                                                    Superfamily: synaptobrevin ; Seywords: membrane protein; synaptic vesicle
                                                                                                                                                                                                                                                                                                                                    ;Molecule type: DNA
;Residues: 1-132 <CHI>
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Residues: 1-32 <PAT>
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  LSELGERADQLEQGASQSEQQAGKLKRKQWWANMK
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                                                                          Score 112; DB 2;
Pred. No. 2.6e-08;
3; Mismatches 10
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0; Mismatches
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Pred. No. 2.4e-09;
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A;Cross-references: UNIPROT:P18489; GB:L14270; NID:g290281; PIDN:AAA28924.1; PID:g290283 A;Note: the authors translated the codon AAG for residue 101 as Asn and CGC for residue: R;Suedhof, T.C.; Baumert, M.; Perin, M.S.; Jahn, R. Reuron, 2, 1475-1481, 1989
A;Title: A synaptic vesicle membrane protein is conserved from mammals to Drosophila. A;Reference number: A93413; MUID:90180466; PMID:2560644
A;Accession: JN0012
                                                                                                                                                 C;Keywords: Synapuro -----.
F;111-130/Domain: transmembrane #status
                                                                                                                                                                                                                       A;Gene: syb
A;Cross-references: FlyBase:FBgn0003660
A;Introns: 16/2; 128/1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     synaptobrevin isoform A - fruit fly (Drosophila melanogaster)
N;Alternate names: vesicle-associated membrane protein A
C;Species: Drosophila melanogaster
C;Date: 10-Mar-1994 #sequence_revision 10-Mar-1994 #text_change 09-Jul-2004
C;Date: 10-Mar-1994 #sequence_revision 10-Mar-1994 #text_change 09-Jul-2004
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JC1521
                                                                                                                                                                                                                                                                                                             A;Molecule type: mRNA
A;Residues: 1-92,'F',94-152 <SUE>
C;Comment: Gene syb comprises five exons.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C;Accession: JC1521; JN0012
R;Chin, A.C.; Burgess, R.W.; Wong, B.R.; Schwarz,
밁
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A;Residues: 1-152 <C
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  LSELGERADQLEQGASQSEQQAGKLKRKQWWANMK 110
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                                                                                                     Score 112; DB 2
Pred. No. 3e-08;
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Search completed: November 1, 2004, 17:53:51 Job time: 19.125 secs

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Minimum
Maximum
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 Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
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length: 2000000000
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172
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Gapop 10.0 ,
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1: uniprot_sprot:*
2: uniprot_trembl:*
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Listing first
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207.209 Million cell updates/sec
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Q6IQX3
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Q8CHR4
VAM2_XENLA
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VAM3_HUMAN
VAM3_MOUSE
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AAH55105
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Bac41125 mus muscu
Q9wuw2 rattus norv
Q8chr4 mus musculu
P47193 xenopus lae
Aah60344 xenopus l
                                                                                                                                                  Q15836 homo sapien
Q64271 mus musculu
Aag42468 mus muscu
Aah60045 mus muscu
Bac34586 mus muscu
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Q64357 mus musculu
Q9buc2 homo sapien
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Aah02737 homo sapi
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Aah61396 xenopus t
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 Q9cxx2 mus musculu
O57345 xenopus lae
Q6iqk3 brachydanio
                                              Bac37151 mus muscu
P13701 torpedo cal
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P23763 homo sapien
                                                                            Q62442 mus musculu
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Q6P835
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                                                                                          06P835;
05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
               Xenopus tropicalis (Western clawed frog) (Silurana tropicalis).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
                                                             Hypothetical protein MGC75977.
Name=MGC75977;
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4. U	44	43	42	41	40	39	ა 8	37	36	S S	34	ω ω	32
154	155	155	155	157	157	157	159	159	159	160	162	162	162
89.5	90.1	90.1	90.1	91.3	91.3	91.3	92.4	92.4	92.4	93.0	94.2	94.2	94.2
118	160	110	86	118	117	116	112	110	110	100	119	119	102
N	N	N	N	ب	N	N	N	N	N	N	N	N	N
Q6DGI1	Q86FE0	Q8T897	Q6DLT0	VAM1_RAT	009025	Q8CH14	057432	AAH59626	Q7SZZ5	Q9BRV4	AAH59687	Q6PBJ3	AAH71402
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ALIGNMENTS

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Synaptobrevin-2 (Fragment).
Oryctolagus cuniculus (Rabbit).
Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Lagomorpha, Leporidae, Oryctolagus.
NCBI TaxID=9986;
                                                                                                                                                                                                                                                                                                           Gouraud S., Laera A., Calamita G., Carmosino M., Procino G., Rossetto O., Mannucci R., Rossetthall W., Svelto M., Valenti G.; "Functional involvement of VANP/Synaptobrevin-2 in CAMP-stimulated aquaporin 2 translocation in renal collecting duct cells."; Cell Sci. 115:3667-3674(2002).

EMBL, AF626953, AAN14408.1; -

InterPro, IPR001388; Synaptobrevin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-MAR-2003 (TrEMBLrel. 23, 01-MAR-2003 (TrEMBLrel. 23, 01-OCT-2003 (TrEMBLrel. 25,
                                                                                                                                                                                                       Pfam, PF00957; Synaptobrevin; 1.
PRINTS; PR00719; SYNAPTORREVN.
ProDom; PR001129; Synaptobrevin;
PROSITE; PS00417; SYNAPTOBREVIN;
PROSITE; PS50892; V SNARE; 1.
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LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK
                      LSELDDRADALQAXASQFEXSAAKLKRKYWWKNLK
                                                                                                                                                       81 AA;
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WEDLINEZ2338257; PubMed=12477932;

REPLINEZ2338257; PubMed=12477932;

REPLINEZ2338257; PubMed=12477932;

REPLINEZ2338257; PubMed=12477932;

REPLINEZ2338257; PubMed=12477932;

REPLINEZ238257; PubMed=1247793;

REPLINEZ238257; PubMed=1247793;

REPLINEZ238257; PubMed=1247793;

REPLINEZ238257; PubMed=1247793;

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Sthausberg R.;
Sthmitted (NOV-2003) to the EMBL/GenB
EMBL; BC061396; AAH61396 1; .
InterPro; IPR001388; Synaptobrevin.
Pfam; PF00957; Synaptobrevin; 1.
PRINTS; PR00219; SYNAPTOBREVN.
ProDom; PD001229; Synaptobrevin; 1.
PROSITE; PS00417; SYNAPTOBREVIN; 1.
SEQUENCE 114 AA; 12440 MW; 0E33EA
          MISSUB-Embryo;
MEDLINE-22388257; PubMed=12477932;
MISSUB-Embryo;
MEDLINE-22388257; PubMed=12477932;
Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
Strausberg R.D., Collins F.S., Wagner L., Schammen C.M., Schuler
Klausner R.D., Collins F.S., Wagner L., Schaefer C.F., Bhat N.
Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Hieh F.
HOpkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.
Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
Diatchenko L., Schaee M.B., Bonaldo M.F., Casavant T.L., Schee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAH61396;
25-MAR-2004
25-MAR-2004
25-MAR-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               25-MAR-2004 (TrEMBLrel. 27, Created)
25-MAR-2004 (TrEMBLrel. 27, Last sequence update)
25-MAR-2004 (TrEMBLrel. 27, Last annotation update
49pothetical protein MGC75977.
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                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A. TISSUE=Embryo;
                                                                                                                                                                                                                                                                                                                                                                                                      Amphibia; Batrachia; !
Xenopodinae; Xenopus;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Xenopus tropicalis (Western clawed frog)
Bukaryota; Metazoa; Chordata; Craniata; V
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                                                                                                                                                                                                                                                                                                                                                                         NCBI_TaxID=8364;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MGC75977
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                                                                                                                                                                                                                                                                                                                                                                                                         Anura; Mesobatrachia; Silurana.
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                                                                                                Hsieh F.,
                                       Scheetz T.E.
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                                                                                                                                                                                                                                                                                                                                          SPECIES=Human; Nabokina S.M., Image: Section of Section 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C., Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J., Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H., Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Glbbs R.A., Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Glbbs R.A., Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A., Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G., Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C., Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S., Krzywinski M.I., Skalska U., Smailus D.E., Schmerch A., Schein J.E., Jones S.J., Marra M.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     P19065;
01-NOV-1990 (Rel. 16, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
01-OCT-2004 (Rel. 45, Last annotation update)
Vesicle-associated membrane protein 2 (VAMP-2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LT 4
HUMAN
                  MEDLINE=90180466; PubMed=2560644;
Suedhof T.C., Baumert M., Perin M.S.,
"A synaptic vesicle membrane protein
                                                                                                                                                                  SPECIES=Human; TISSUE=Blood;
Taruscio D., Zoraqi K.G., Falbo V.;
Taruscio D., Zoraqi K.G., Falbo V.;
"Genomic structure of human SYB2 gene.";
Submitted (MAR-1999) to the EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=91009161; PubMed=1976629; Archer B.T. III, Oezcelik T., Jah
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Name=VAMP2; Synonyms=SYB2;
Homo sapiens (Human), and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VAM2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Klein S., Strausberg R.;
Submitted (NOV-2003) to the
EMBL; BC061396; AAH61396.1;
Hypothetical protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Krzywinski "...., Marra M.A.;
Jones S.J., Marra M.A.;
"Generation and initial analysis of
and mouse cDNA sequences.";
Acad. Sci. U.S.A. 99:16
                                                                                             SEQUENCE FROM N
SPECIES=Bovine;
                                                                                                                                                                                                                                                                                                                   Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 synaptobrevins 1 and 2.";
J. Biol. Chem. 265:17267-17273(1990)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Archer B.T. III, Oezcelik T., Jahn R., Fra "Structures and chromosomal localizations
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bos taurus
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                                                                                                                    FROM N.A
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Lazo P.A., Mollinedo F.;
VAMP genes in human neutrophils.";
(-1998) to the EMBL/GenBank/DDBJ dat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STANDARD;
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to the
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Pred.
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Catarrhini;
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No. 7.
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                                                 Jahn
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7.2e-16;
2;
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ons of two human genes
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i; Hominidae; Homo.
                         conserved
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Ж.;
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                                                                                                                                                                          databases
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SPECIES=Bovine;

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AND

67-82,

AND

ACETYLATION

Neuron [5]

2:1475-1481(1989).

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PRESENTATION OF THE PRESEN
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EMBL; M36201; AAA60604.1; JOINED.
EMBL; M36202; AAA60604.1; JOINED.
EMBL; M36202; AAA60604.1; JOINED.
EMBL; M36203; AAA60604.1; JOINED.
EMBL; M36204; AAA60604.1; JOINED.
EMBL; AJ225044; CAA12385.1; -...
EMBL; AJ35372; AAF15551.1; -...
EMBL; AF135372; AAF15551.1; -...
EMBL; AF1691; CAA53792.1; -...
EMBL; HS81; BS815; B
                           MIM, 185881,
GO; GO:0005887; C:integral to p.
GO; GO:0005887; C:integral to p.
InterPro, IPR001388; Synaptobrevin; 1
Pfam; PF00957; Synaptobrevin; 1
PRINTS; PR001219; SYNAPTOBREVIN
PRODOM: PD001219; SYNAPTOBREVIN
PROSITE; PS00417; SYNAPTOBREVIN
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between
the Euro
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Geromanos S., Tempst P., Rothman
"SNAP receptors implicated in ves
Nature 362:318-324(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=96332494; PubMed=8760387; Jagadish M.N., Fernandez C.S., He Grusovin J., Verkuylen A., Cosgro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE-95137000; PubMed=7835332;
Kutay U., Ahnert-Hilger G., Hartmann E., W
"Transport route for synaptobrevin via a nu
into the endoplasmic reticulum membrane.";
EMBO J. 14:217-223(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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Nat.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=20392548;
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MEDLINE=95137000;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  K-RAY CRYSTALLOGRAPHY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    vesicles to their target membrane SUBUNIT: Interacts with VAPA and VSUBCELLULAR LOCATION: Type IV members.
                                                                                                                                                       ; 185881; -.
GO:0005887; C:integral to plasma
erPro; IPR001388; Synaptobrevin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SIMILARITY: Belongs to the synaptobrevin family. SIMILARITY: Contains 1 v-SNARE coiled-coil homology
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ISSUE SPECIFICITY: Nervous system and skeletal IMILARITY: Belongs to the synaptobrevin family
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Synaptobrevin; SYNAPTOBREVIN; V_SNARE; 1.
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grove L., Alafaci
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V membrane
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faci A., F
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1 M.J.,
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                                                                                                                                                                                                       MEDLINE=98104125; PubMed=9430681;
Martin L.B., Shewan A., Millar C.A.,
"Vesicle-associated membrane protein
insulin-dependent trafficking of the
GLUT4 in 3T3-L1 adipocytes.";
J. Biol. Chem. 273:1444-1452(1998).
                                                                                                                                                                                                                                                                                     MEDLINE-89291844; PubMed=2472388;
Elferink L.A., Trimble W.S., Scheller R.H.;
Elferink Least Trimble W.S., Scheller R.H.;
"Two vesicle-associated membrane protein genes
expressed in the rat central nervous system.";
J. Biol. Chem. 264:11061-11064(1989).
X-RAY CRYSTALLOGRAPHY
AND SNAP25.
SPECIES=Rat;
                           Neuron
[5]
                                                    MEDLINE=21822661; PubMed=11832227;
Chen X., Tomchick D.R., Kovrigin E.,
Suedhof T.C., Rizo J.;
                                                                                                                                                                                                                                                                                                                                                                                                    Name=Vamp2; Synonyms=Syb2;
Mus musculus (Mouse), and
                                                                                                                                                                                                                                                                                                                                                                                                                        Vesicle-associated membrane
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                                            "Three-dimensional structure
                                                                                                                             MEDIINE=98430524; PubMed=9759724; D
Sutton R.B., Fasshauer D., Jahn R.,
"Crystal structure of a SNARE compl
at 2.4 A resolution.";
                                                                                                                                                                                     X-RAY CRYSTALLOGRAPHY
                                                                                                                                                                                                                                                                        SEQUENCE FROM
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                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=10090,
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Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                           Rattus norvegicus (Rat)
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                                                                                                                      Nature
                                                                                                                                                                     SPECIES=Rat;
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Pred. No. 7.3e
0; Mismatches
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N-acetylserine.
V-SNARE coiled-coil homology.
388B79F0D21AD81E CRC64;
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Sciurognathi; Muridae; Murinae;
                                                                                                                                        complex
                                              the
                                                                                                                                        DOI=10.1038/26412;
., Brunger A.T.;
plex involved in sy
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SEQUENCE
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                                                 01-JUN-2001 (TrEMBLrel. 17, 01-JUN-2001 (TrEMBLrel. 17, 01-OCT-2004 (TrEMBLrel. 28, Vesicle-associated membrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; M24105; AAA42321.1; -. EMBL; U60150; AAB03463.1; -. PIR; B34288; B34288.
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-!- SIMILARITY: Contains 1 v-SNARE coiled-coil homology domain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "High resolution structure, stability, and synaptotagmin binding truncated neuronal SNARE complex.";
                                                                                                                      Q9BUC2
                                                                                                                                                                                                                                                                                                                                                                                                                 Polymorphism; Synapse; INIT MET 0 0 0 DOMAIN 1 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PDB; 1KIL; X-ray; A=26-91.
PDB; 1N7S; X-ray; A=26-88.
PDB; 1SFC; X-ray; A/E/1=1-95.
MGD; MGI:1313277; Vamp2.
                          Homo sapiens (Human)
                                          Name=VAMP2;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        3D-structure;
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PRODOM; PD0011229; SYNAPTOBREVIN; 1.
PROSITE; PS00417; SYNAPTOBREVIN; 1.
PROSITE; PS50892; V_SNARE; 1.
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SUBUNIT: Interacts with VAPA and VAPB (By s SNARE core complex containing SNAP25, VAMP2
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rPro; IPR001388; Synaptobrevin.
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               Metazoa;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           278:8630-8636(2003).
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                                                                                                                                                                                                                                                                                                12559 MW;
              Chordata;
                                                                                                                                                                                                                                                     98.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                         Synaptosome; Transme
By similarity.
                                                  Last sequence update)
Last annotation update)
protein 2 (Synaptobrevin
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                                                                                             Created)
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); Mismatches
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                                                                                                                                                                                                                                                                                                                                                                            Vesicular (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                   Anchor for type
                                                                                                                                                                                                                                                                                                                                                                                                                  Cytoplasmic
                                                                                                                                                                                                                                                                                                                                                                                       (Potential
              Craniata;
                                                                                                                        PRT;
                                                                                                                                                                                                                                                                                              EA400D6291ABF0BC
                                                                                                                                                                                                                                                                                                                        V
                                                                                                                                                                                                                                                        169;
No. 7
                                                                                                                                                                                                                                                                                                                                                                                                                                             Transmembrane
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               Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                    DB .
/.3e-16;
2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Multigene family;
                                                                                                                        A
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ype IV membrane protein
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                                                                                                                                                                                                                                                                     Length 115;
                                                                                                                                                                                                                                                                                                CRC64;
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RX Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,

RX Strausberg R.L., Feingold E.A., Grouse L.H., Shemmen C.M., Schuler G.D.,

RX Klausner R.D., Collins F.S., Wagner L., Shemmen C.M., Schuler G.D.,

RX Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsich F.,

RX Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsich F.,

RX Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

RX Staplecon M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,

RX Staplecon M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

RX Staplecon M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

RX Staplecon M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

RX Staplecon M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

RX Staplecon M.J., Nowelland N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

RX Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,

RX A. Holards S., Worley K.C., Hale S., Garcia A.M., Gubs L.J., Hulyk S.W.,

RX Willalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

RX Wilting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

RX Holards S.A., Touchman J.W., Green E.D., Dickson M.C.,

RX Holards M.J., Skalska U., Smailus D.E., Schnerch A., Schein J.B.,

RX Karywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.B.,

RX Karywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.B.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              InterPro; IPRO01388; Synaptobrevin.
Pfam; PF00957; Synaptobrevin; 1.
PRINTS; PR00219; SYNAPTOBREVN.
ProDom; PD001229; Synaptobrevin; 1.
PROSITE; PS00417; SYNAPTOBREVN; 1.
PROSITE; PS50092; V SNAPTOBREVN; 1.
PROSITE; PS50092; V SNAPR; 1.
SEQUENCE 116 AA; 12663 MW; 9CD67;
                                                                                                           Q9NOYO;
Q9NOYO;
01-OCT-2000
01-OCT-2000
01-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Jones S.J., Warra M.A.;
Jones S.J., Warra M.A.;
"Generation and initial analysis of more than 15,000 and mouse cDNA sequences.";
n---- Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
     Macaca mulatta (Rhesus macaque).
Eukaryota; Metazoa; Chordata; Cr
Mammalia; Eutheria; Primates; Ca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Submitted (JUL-2002)
EMBL; BC002737; AAH02
EMBL; BC019608; AAH19
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                                                                                         VAMP-2.
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                                                                                                                                                                                                                                   PRELIMINARY;
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257; PubMed=12477932;
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; AAH19608.1;
; AAH33870.1;
        Chordata; Craniata; Vertebrata; Euteleostomi; Primates; Catarrhini; Cercopithecidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Primates; Catarrhini; Hominidae; Homo.
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94.3%;
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                                                                                                                 Last sequence update)
Last annotation update)
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                                                                                                                                                                          Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9CD679C4F6F1B5A8 CRC64;
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Matches
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MGD; MGI:131377; Vamp2.

GO: GO:0030141; C:secretory granule; IDA.

GO: GO:0030141; C:synaptic vesicle membrane; IDA.

GO: GO:0030672; C:synaptic vesicle membrane; IDA.

GO: GO:0005289; C:zymogen granule membrane; IDA.

GO: GO:0005516; F:calmodulin binding; IDA.

GO: GO:0005543; F:phospholipid binding; IDA.

GO: GO:000543; F:shospholipid binding; IDA.

GO: GO:000149; F:SNARE binding; IDA.

GO: GO:0017156; P:calcium ion-dependent exocytosis; IDA.

GO: GO:0017157; P:regulation of exocytosis; IDA.

GO: GO:0017157; P:regulation of exocytosis; IDA.

GO: GO:0017157; P:regulation feverytosis; IDA.

GO: GO:0017157; P:regulation feverytosis; IDA.

RO: GO:0017157; P:synaptic vesicle fusion; IMP.

InterPro; Synaptobrevin.

READ: FRO00219; SYNAPTOBREVN.

PRODOM; PD001229; SYNAPTOBREVN.

READ: FRO00211; SYNAPTOBREVN.
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MGD; MG:1313277; Vamp2.

GO; GO:0030141; C:secretory gr GO; GO:0030672; C:symaptic ves GO; GO:0005516; F:calmodulin to GO; GO:0005516; F:calmodulin to GO; GO:0005543; F:phospholipid GO; GO:00017156; P:calcium tion GO; GO:0017157; P:regulation GO; GO:0017157; P:regulation GO; GO:0017157; P:regulation GO; GO:0017157; P:regulation GO; GO:0017158; P:synaptic ves GO; GO:0017157; P:regulation GO; GO:0017158; P:synaptic ves GO; GO:0017158; P:synaptic ves GO; GO:0017158; P:synaptic ves GO; GO:0017158; P:regulation G
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O35619;
O1-JAN-1998 (TrEMBLrel. 05, Created)
O1-JAN-1998 (TrEMBLrel. 05, Last sequence update)
O1-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Vesicle associated membrane protein 2.
Name=Vamp2; Synonyms=mVAMP-2;
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PRINTS; PR00219; SYNAPTOBREVIN;
ProDom; PB001229; Synaptobrevin; 1.
PROSITE; PS00417; SYNAPTOBREVIN; 1.
PROSITE; PS50892; V_SNARE; 1.
SEQUENCE 116 AA; 12663 MW; 9CD6
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NCBI_TaxID=9544;
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Jensen M.J., Smith
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Mammalia; Eutheria;
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PRINTS; PR00219; SYNAPTOBREVN.
PRODOM; PD001229; Synaptobrevin; 1.
PROSITE; PS00417; SYNAPTOBREVIN; 1.
PROSITE; PS50892; V SNARE; 1.
SEQUENCE 116 AA; 12677 MW; 4E1D
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; Rodentia;
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o the EMBL/GenBank/DDBJ
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Pred. No. 7
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Pred. No. 7.3e-16;
0; Mismatches 2;
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WARDLINE-2238257; PubMed=12477932;

RStrausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,

Raltschni S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

Altschni S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Heich F.,

A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Heich F.,

A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Heich F.,

A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Heich F.,

A Hopkins R.F., Jordan H., Moore T., Max S., Casavant T.L., Scheetz T.E.,

Brownstein M.J., Ugdin T.B., Toshiyuki S., Carninci P., Prange C.,

Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

Raha S.S., Morley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

Villaion D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

Raha S.S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

Raha S.S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

Rahards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

Rahards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

Rahards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

Rahards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

Rahards S., Worley K.C., Hale S., Garcia A.M., Sanchez A.,

Rahards S., Garcia A.M., Gay L.J., Hulyk S.W.,

Rahards S., Gar
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AAH55105;
14-APR-2004 (TrEMBLrel. 27, L
14-APR-2004 (TrEMBLrel. 27, L
14-APR-2004 (TrEMBLrel. 27, L
Vesicle -associated membrane p
Mus musculus (Mouse)
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submitted (FEB-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; BC002737; AAH02737.3; -.
SEQUENCE 116 AA; 12663 NW; 9CD679C4F6F1B5A8 CRC64;
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Krzywinski M.I., w...
Jones S.J., Marra M.A.;
"Generation and initial analysis
"Generation and sequences.";
"-~"se CDNA sequences.";
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AAH02737;
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14-APR-2004 (TrEMBLrel. 27,
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Mammalia; Eutheria;
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      Strausberg R.L., Feingold E.A., Grouse I Klausner R.D., Collins F.S., Wagner L., Altschul S.F., Zeeberg B., Buetow K.H.,
                                                                                         SEQUENCE FROM N.A. TISSUE=Brain; MEDLINE=22388257;
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Mammalia; Eutheria;
                                                                                                                                                                                                         NCBI_TaxID=10090;
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                                                                                                   PubMed=12477932;
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Pred. No. 7.3e
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Sciurognathi;
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            L.H., Derge J.G.,
Shenmen C.M., Schuler
Schaefer C.F., Bhat N
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thi; Muridae;
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RESULT 11
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Matches 33
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Strausberg R.;
Strausberg R.;
Submitted (JUL-2003) to the EMBL/GenBank/DDBJ databases
EMBL; BC055105; AAH55105.1; -
SEQUENCE 116 AA; 12691 MW; 4A0D0D56B5409D0A CRC64;
            SEQUENCE FROM N.A. STRAIN=C57BL/6J; T
                                                     SEQUENCE FROM N.A.
STRAIN=C57BL/60; TISSUE=Brain;
MEDLINE=99279253; PubMed=10349636;
Carrinci P., Hayashizaki Y.;
"High-efficiency full-length cDNA cloning.";
Meth. Enzymol. 303:19-44(1999).
                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa;
Mammalia; Eutheria;
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14-APR-2004 (TrEMBLrel.
14-APR-2004 (TrEMBLrel.
14-APR-2004 (TrEMBLrel.
                                                                                                                                                                                   SEQUENCE FROM N.A.
STRALNE-C57BL/6J; TISSUE=Brain;
MEDLINE-21.085660; PubMed=11217851;
RIKEN FANTOM Consortium;
                                                                                                                                                                                                                                                         the RIKEN Genome Exploration Research Group Phase I & II "Analysis of the mouse transcriptome based on functional 60,770 full-length cDNAs.";
Nature 420:563-573(2002).
                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
STRALN=C57BL/6J; TISSUE=Brain;
STRALNE=23354633; PubMed=12466851;
The FANTOM Consortium,
                                                                                                                                                                                                                                                                                                                                                                                                                                  Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BAC41125
                                                                                                                                                         Nature 409:685-690(2001).
                                                                                                                                                                       "Functional annotation of a full-length mouse cDNA collection.";
                                                                                                                                                                                                                                               Nature 420:563<sup>.</sup>
[2]
                                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=10090;
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                                                                                                                                                                                                                                                                                                                                                                                                                                              4-APR-2004 (TrEMBLrel. 27, Created)
4-APR-2004 (TrEMBLrel. 27, Last sequence update)
4-APR-2004 (TrEMBLrel. 27, Last annotation update)
4-APR-2004 (TrEMBLrel. 27, Last annotation update)
5 days embryo brain cDNA, RIKEN full-length enriched library,
lone:G630012G02 product:unclassifiable, full insert sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SSUE=Brain;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                                                                       Chordata;
Rodentia;
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Pred. No. 7.3e
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                       Craniata; Vertebrata; Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
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7.3e-16;
2;
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; Murinae; Mus
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ACCOCCUTATION OCCUTATION OCCUTATI
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SEQUENCE FROM N.A.

CATRAIN-CS78L/61; TISSUE-Brain;

Addachi J., Aizawa K., Akimura T., Arakawa T., Bono H., Carninci P.,

Addachi J., Aizawa K., Akimura T., Hara A., Hashizume W.,

Pukuda S., Furuno M., Haragaki T., Hara A., Hashizume T.,

A Hayashida K., Hayatsu N., Hiramoto K., Hirawata T., Hirozane T.,

A Hori F., Imotani K., Ishii Y., Itoh M., Kagawa I., Kasukawa T.,

A Katoh H., Kawai J., Kojima Y., Kondo S., Konno H., Kouda M., Koya S.,

A Kurihara C., Matsuyama T., Miyazaki A., Murata M., Nakamura M.,

A Kurihara C., Matsuyama T., Miyazaki A., Ohsato N., Okazaki Y.,

A Kurihara C., Matsuyama T., Miyazaki A., Murata M., Nakamura M.,

Nishi K., Nomura K., Numazaki R., Ohno M., Ohsato N., Okazaki Y.,

A Nishi K., Nomura K., Numazaki K., Sakazume N., Sano H.,

Saito R., Saitoh H., Sakai C., Sakai K., Sakazume N., Sano H.,

Sasaki D., Shibata K., Shinagawa A., Shiraki T., Sogabe Y., Tagami M.,

Sasaki D., Shibata K., Shinagawa A., Shiraki T., Sogabe Y., Tagami M.,

Sasaki D., Shibata K., Shinagawa A., Shiraki T., Sogabe Y., Tagami M.,

Tagawa A., Takahashi F., Takaku-Akahira S., Takeda Y., Tanaka T.,

Tagawa A., Takahashi F., Takaku-Akahira S., Takeda Y., Tanaka T.,

A Tomaru A., Toya T., Yasunishi A., Muramatsu M., Hayashizaki Y.;

Bubit H. (App. 2002) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
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associated membrane protein-2 ('
FEBS Lett. 451:209-213(1999).
EMBL; Anil33104; CAB43509.1; -.
InterPro; IPR001388; Synaptobrev
InterPro; Synaptobrevin; 1
PRINTS; PR00219; SYNAPTOBREVN.
ProDom; PD001229; Synaptobrevin.
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MEDLINE=20530913; PubMed=11076861;
MEDLINE=20530913; PubMed=11076861;
MEDLINE=20530913; PubMed=11076861;
MEDLINE=20530913; PubMed=11076861;
Majaraka K., Itch M., Aizzwa K., Nagaoka S., Sasaki N., Carninci P.,
Konno H., Akiyama J., Nishi K., Kitsunai T., Tashiro H., Itch M.,
Sumi N., Ishii Y., Nakamura S., Hazama M., Nishine T., Harada A.,
Yamamoto R., Matsumoto H., Sakaguchi S., Kegami T., Kashiwagi K.,
Fujiwake S., Inoue K., Togawa Y., Izawa M., Ohara E., Watchiki M.,
Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J.,
Yoneda Y., Sishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J.,
Yoneda Y., Muramateu M., Inoue Y., Kira A., Hayashizaki Y.;
"RIKEN integrated sequence analysis (RISA) system-384-format
sequencing pipeline with 384 multicapillary sequencer.";
Genome Res. 10:1757-1771(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q9WUW2;
01-NOV-1999 (TrEMBLrel.
01-NOV-1999 (TrEMBLrel.
01-JUN-2003 (TrEMBLrel.
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                                                                                                                                                                                                                                   STRAIN=Sprague-Dawley;
MEDLINE=99297576; PubMed=10371166;
Mandic R., Lowe A.W.;
"Characterization of an alternativ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Д9МПМ2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Vesicle associated membrane
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                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=10116
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94.3%;
                                                                                                  Synaptobrevin
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12,
24,
                                                                                                                                                                                                           alternatively spliced isoform
tein-2 (VAMP-2).";
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Last annotation updat
protein 2B.
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Pred. No. 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Craniata; Vertebrata;
Sciurognathi; Muridae;
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QBCHH 13
QBCH QBCH ID HQBCH QBCH ID QBCH QBCH ID O1-M
DT 01-M

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X Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,

X Strausberg R.L., Feingold E.A., Grouse L.H., Shemmen C.M., Schuler G.D.,

X Altschul S.F., Collins F.S., Wagner L., Shemmen C.M., Schuler G.D.,

X Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

X Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

X Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

X Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

X Altschul S.F., Jordan H., Moore T., Max., Rubin G.M., Hong L.,

X Altschul S.F., Jordan H., Farmer A.A., Rubin G.M., Hong L.,

X Altschul S.F., Jordan K., Farmer A.A., Rubin G.M., Hong L.,

X Altschul S.F., Jordan K., Foshiyuki S., Carninci F., Prange C.,

X Altschul S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

X Altschul S., Mozley K.C., Hale S., Garcia A.M., Gunaratne F.H.,

X Alakorde S., Wozley K.C., Hale S., Garcia A.M., Gy L.J., Hulyk S.W.,

X Altschul S., Wozley K.C., Hale S., Garcia A.M., Gubbs R.A.,

X Altschul S., Wozley K.C., Hale S., Garcia A.M., Gibbs R.A.,

X Altschul S., Wozley K.C., Hale S., Garcia A.M., Gibbs R.A.,

X Altschul S., Wozley K.C., Hale S., Garcia A.M., Gibbs R.A.,

X Altschul S., Wozley K.C., Hale S., Garcia A.M., Schbs R.A.,

X Altschul S., Wozley K.C., Hale S., Garcia A.M., Schbs R.A.,

X Altschul S., Wozley K.C., Hale S., Garcia A.M., Schbs R.A.,

X Altschul S., Wozley K.C., Hale S., Garcia A.M., Schbs R.A.,

X Altschul S., Wozley K.C., Hale S., Sanchez A.,

X Altschul S., Wozley K.C., Hale S., Schmerch A., Schein J.E.,

X Altschul S., Sanchez A., Schmutz J., Myers R.M., Butterfield Y.S.,

X Altschul S., Sanchez A., Schmutz J., Myers R.M., Butterfield Y.S.,

X Altschul S., Sanchez A., Schmutz J., Schmerch A., Schein J.E.,

X Altschul S., Sanchez A., Schmutz J., Schmerch A., Schein J.E.,

X Altschul S., Sanchez A., Sanche
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EMBL; BC039745; AAH3745.1; -

R HSSP; Q9NUW2; 1SFC.

R GO; GO:0030141; C:secretory granule; IDA.

R GO; GO:00301672; C:synaptic vesicle membrane; IDA.

R GO; GO:00042589; C:zynaptic vesicle membrane; IDA.

R GO; GO:0005516; F:calmodulin binding; IDA.

R GO; GO:0005543; F:phospholipid binding; IDA.

R GO; GO:0017156; F:calcium ion-dependent exocytosis; IDA.

R GO; GO:0017157; P:regulation of exocytosis; IDA.

R GO; GO:0017157; P:regulation of exocytosis; IDA.

R GO; GO:0017157; Synaptiobrevin.

R GO; GO:0017293; Synaptobrevin.

R FAINTS; FR001388; Synaptobrevin; 1.

R PRINTS; PR00219; SYNAPTOBREVIN; 1.

R PROSITE; PS00417; SYNAPTOBREVIN; 1.

R PROSITE; PS00417; SYNAPTOBREVIN; 1.
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01-MAR-2003
01-MAR-2003
01-OCT-2003
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PROSITE;
SEQUENCE
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Mammalia; Eutheria;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Generation and initial analysis and mouse cDNA sequences.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local
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T-2003 (TrEMBLrel. 2
protein (Fragment).
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PS50892;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (NOV-2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  135 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
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257; PubMed=12477932;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SYNAPTOBREVIN; 1.
V_SNARE; 1.
V_14509 MW; F37D14A87BDAB1F6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sci. U.S.A. 99:16899-16903(2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Chordata;
Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98.3%;
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Last annotation updat
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL/GenBank/DDBJ databases
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                o
H
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 135;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       full-length human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
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RESULT 14
VAM2_XENLA
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Best Local S
Matches 33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VAM2 XENLA
P47193;
01-NOV-1995
15-DEC-1998
05-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NON TER
                                                                                                                                                                                                                                                            This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                        Development 121:1927-1935(1995).

I-FUNCTION: Involved in the targeting and/or vesicles to their target membrane.

-:- SUBCELLULAR LOCATION: Type IV membrane prot
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Knecht A.K., Good P.J., Dawid I.B., Harland R.M.; "Dorsal-ventral patterning and differentiation of neural tissue in the absence of mesoderm.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A. Wang X.-H., Poo M.-M.; Submitted (NOV-1997) to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Ver
Amphibia; Batrachia; Anura; Mesobatrachia;
Xenopodinae; Xenopus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Vesicle-associated membrane
                                                                                                                                                                                                         EMBL; AF035017; AAB88138.1; -.
EMBL; U16801; AAA81376.1; -.
HSSP; P19065; 1F83.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Kenopus laevis (African clawed frog).
                                                                                                                                         Pfam; PF00957; Synaptobrevin; 1.
PRINTS; PR00219; SYNAPTOBREVN.
ProDom; PD001229; SYNAPTOBREVIN;
PROSITE; PS00417; SYNAPTOBREVIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=95324415; PubMed=7601005;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 rissum=Embryo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE OF 32-113 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (SYBII).
                                     DOMAIN
                                                                                                                                PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CBI_TaxID=8355;
                                                                FRANSMEM
                                                                               OMAIN
                                                                                                                cetylation;
                                                                                                                                                                                              nterPro;
                                                                                                                                                                                                                                                                                                                                                                 SIMILARITY: Belongs to the synaptobrevin family. SIMILARITY: Contains 1 \nu\text{-SNARE} coiled-coil homology domain.
                                                                                                                                                                                                                                                                                                                                                                                                vesicles
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       86 LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 LSELDDRADALQAXASQFEXSAAKLKRKYWWKNLK 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         l Similarity
33; Conserv
                                                                                                       embrane.
                                                                                                                                PS50892;
                                                                                                                                                                                                IPR001388; Synaptobrevin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            142
111
1
28
113 AA;
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(Rel. 37, Last sequence up
(Rel. 44, Last annotation
                                                                                                                                                                                                                                                                                                                                                                                                                                                  121:1927-1935(1995)
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                                                                                                                     Coiled
                                                                92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STANDARD;
                                                                91
110
                             113
1
                                                                                                                coil;
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                                                                                                                                 SNARE;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        the EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                           Type IV membrane protein. Neuronal synaptic
    ¥.
                                                                                                                     Multigene family; Synapse;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        protein 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 169; DB 2;
Pred. No. 9.1e-16;
0; Mismatches 2
                                                    By similarity.
Cytoplasmic (Potential).
(Potential).
             N-acetylserine (By similarity) v-SNARE coiled-coil homology.
                                        Vesicular (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               F1B0C9C9B495B776 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        update)
(VAMP-2) (Synaptobrevin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Vertebrata; Euteleostomi;
ia; Pipoidea; Pipidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Å
                                                                  (Potential)

Ype IV memb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           databases
                                                                                                                                                                                                                                                                                                                                                                                                                                        fusion
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                                                                    membrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             noggin-induced
                                                                                                                      Synaptosome;
                                                                                                                                                                                                                                                                                                                                                                                                                                        of transport
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Query Match Best Local Similarity

97.18; 91.48;

Length 113;

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RESULT 15
RABH60344
ID AAH60344
ID AAH60344
ID 02-MA
AC AAH60
DT 02-MA
DT 10-MA
DT 02-MA
REDULL
RN (1)
RN MEDLL
RN
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                                                                                                                       Query Match
Best Local S
Matches 32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,

RA Altschul S.P., Zeeberg B., Buetow K.H., Schaefer C.M., Schuler G.D.,

A Altschul S.P., Zeeberg B., Buetow K.H., Schaefer C.P., Bhat N.K.,

A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsleh F.,

A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsleh F.,

A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsleh F.,

A Hopkins R.F., Jordan H., Moore T., Rubin G.M., Hong L.,

A Hopkins R.F., Jordan H., Moore T., Rawin G.M., Hong L.,

A Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,

B Stapleton M., J., Usdin T.B., Toshiyaki S., Carninci P., Prange C.,

A Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,

A Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

Villalon B., Ketteman M., Madan A., Rodrigues S., Sanchez A.,

Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,

Blakesley R.W., Touchman J.W., Green E.D., Schnerch A., Schein J.E.,

Jones S. T. Marza M.A., Schmutz J., Myers R.M., Butterfield Y.S.,

A Kraywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,

Jones S. T. Marza M.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                           Klein S., Strausberg R.;
Submitted (OCT-2003) to the EMBL/GenBank/DDBJ databases
EMBL; EC060344; AAH60344.1; -.
SEQUENCE 114 AA; 12472 MW; AEF2EDDCDF2D1DBF CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           02-MAR-2004 (TrEMBLrel.
02-MAR-2004 (TrEMBLrel.
02-MAR-2004 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAH60344;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAH60344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences.";
Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TISSUE=Embryo;
MEDLINE=22388257; PubMed=12477932;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Xenopus laevis (African clawed frog).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
Xenopodinae; Xenopus; Xenopus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=22341132; PubMed=12454917;
Klain S.L., Strausberg R.L., Wagner L., Pontius J., Clifton S.W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Vamp2-B-prov protein.
VAMP2-B-PROV.
                                                                                                                                                                                                                                                                                                                                                                                       FISSUE=Embryo;
                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Jones S.J., Marra M.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Dev. Dyn. 225:384-391(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              initiative."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Genetic and genomic tools for Xenopus research: The NIH Xenopus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Richardson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TISSUE=Embryo;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=8355;
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                                                          Н
                                                                                                                          l Similarity 91.4
32; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LSELDDRADALQAXASQFEXSAAKLKRKYWWKNLK 35
   LSELDDRADALQAGASQFETSAAKLKRKYWWKNMK
                                        LSELDDRADALQAXASQFEXSAAKLKRKYWWKNLK 35
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                                                                                                                                                      97.18;
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27,
                                                                                                                          1;
                                                                                                                          Score 167; DB
Pred. No. 1.4e
1; Mismatches
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Last annotation update)
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Pred. No. 1.4e-15;
1; Mismatches 2;
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                                                                                                                          DB 2; I
1.4e-15;
hes 2;
92
                                                                                                                                                                                    Length 114;
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Search completed: November 1, 2004, 17:59:09
Job time : 99.1875 secs

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GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

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Minimum
Maximum
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Maximum Match 100%
Listing first 45 summaries
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 80
                                                                                                                                                                                                                                                                                                                                                                                                                             Score
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length: 2000000000
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Match
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Gapop 10.0 ,
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139.506 Million cell updates/sec
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173
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1: geneseqp1980s:*
2: geneseqp1990s:*
 LSELDDRADALQAGASXFEXSAAKLKRKYWWKNLK
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geneseqp1990s:*
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ADE57598
ADE57612
ADE60831
ADE57606
ADE60829
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AAO15163
AAB39482
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AAB50301
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ADE57504
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Aab50301 VAMP2 pep
Aab48582 VAMP2 pep
Aao15163 Clostridi
Aab39482 Gene 49 h
Aar86821 VAMP isof
                                                                                                                                                                                                                               Ade57606
Ade60829
 Ade57602
Ade57510
Ade57592
Ade57594
Ade57614
Ade57608
Aaw434104
Aaw434243
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Aabp43681
Abp76220
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Ade57612
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Human Pro
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VAMP-2 se
Human GEN
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Human Pro
Rat Prote
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Rat Prote
      RESULT 1
RARRESULT 2
RARRESULT
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45	44	43	42	41	40	3 9	ω 8	37	36	35	34	ω ω	32	31	30	29	28	27	9
165	165	165	168	168	168	168	169	170	170	170	170	170	170	170	170	170	170	170	170
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AAY88240	AAW04182	AAR86824	ADM97008	ABW01720	ADG89012	AAY88244	U	ADF90406	AAY43845	ADF90403	AAY43843	ADM97005	ADM97007	ADM97006	ADG89011	ABW01705	ABW01718	171	AAE36664
Aay88240	Aawu4182	Aar86824			107	100	Aaolsis	AGI90406	Aay43845	Adiyu4u3	Aay43843	Adm9 / 005	Adm9/00/	Adm97006	Adgesull	ADWUL / US	ADWOL / 18	Abw01719	Adecoost
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ALIGNMENTS

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Synthetic.
                                                                                                                                                                                     neurotransmitter; antibody; detection
                                                                                                                                                                                                            VAMP; vesicle-associated membrane protein; SNAP-25; syntaxin;
neurotransmitter; neurotoxin; botulinum; botulism; cleavage; substrate;
                                                                                                                                                                                                                                                                                                                                              AAR86822;
                                                                                                                                                                                                                                                                                                                                                                                   AAR86822 standard; peptide; 37
                                                                                           Misc-difference
                                                                                                                                                                                                                                                                   VAMP isoform-1 residues 60-94
                                                                                                                                                                                                                                                                                                        15-AUG-1996
                                  Peptide
                                                                                                                                                                                       smitter; neurotoxin; detection; assay.
                                                                                                                                                                                                                                                                                                          (first
/note= "VAMP isoform-1 residues 60-94" 37
                                                                                                          Location/Qualifiers
                                                     /label= N-terminal Cysteine
/note= "may be present to attach peptide
                                                                                                                                                                                                                                                                                                          entry)
                                                                                                                                                                                                                                                                     (plus N- and C-terminal cysteines).
                                                                                                                                                                                                                                                                                                                                                                                         8
                                                             ö
                                                             solid-phase"
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Shone CC, 03-JUN-1994; 02-JUN-1995; 14-DEC-1995. WO9533850-A1 (MICR-) MICROBIOLOGICAL RES AUTHORITY. (CAMR-) CAMR CENT APPLIED MICROBIOLOGY & RES Hallis B, 94GB-00011138. 95WO-GB001279 James BAF, Quinn CP;

Misc-difference

/note= phase"

'label= C-terminal cysteine
'note= "may be present to attach to peptide

to solid-

Assay for botulinum or tetanus toxin - b substrate which is cleaved by the toxin, cleaved but not uncleaved substrate. WPI; 1996-040249/04. by combining test cpd. with n, and antibody specific for the

Example 1; Page 28-29; 48pp; English

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RESULT 3
AAB48582
                                                                                                                                                                                                                                                                                                                                                       RESULT 2
AABSO301
ID BABS
XX AABS
AC AABS
XX AABS
XX VAMP
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                                                                                                                                                                                                                                               Query Match
Best Local S
Matches 33
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Best Local S
Matches 33
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             AAB48582 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 37 AA;
                                                                                                                                                                                                                                                                                                                                                          Sequence 40
                                                                                                                                                                                                                                                                                                                                                                                                                               The present sequence was investigated in the search for Botulinum inhibitors (BttxB). Previn compounds which inhibit the enzymatic of BttxB and tetanus neurotoxins were isolated. Previns may be use
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2001-025001/03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel Previn compounds useful for inhibiting the protease activity of Botulinum B and tetanus toxins.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15-MAY-2000; 2000WO-US013215.
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                                                                                                                                                                                                                                                                                                                                                                                                            construct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; Page 5; 47pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gordon RK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO200069891-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VAMP2; antibacterial; Botulinum toxin inhibitor; BttxB; previn;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    tetanus neurotoxin;
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                                                                                                                                                                                             1 LSELDDRADALQAGASXFEXSAAKLKRKYWWKNLK 35
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                                                                                                                                                                                                                                                                           Similarity
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33; Conservative
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                                                                                                                                                 LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK
                                                                                                                                                                                                                                                                                                                                                                                                         compounds
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                                                                                                                                                                                                                                                  Conservative
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           peptide;
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             40
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                                                                                                                                                                                                                                               Score 170; DB 4; : Pred. No. 5.2e-18; 0; Mismatches 2;
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                                                                                                                                                                                                                                                                                                  Length 40;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present sequence is one of a number of peptide or peptide-like compounds, designated buforins, which inhibit the enzymatic activity of sotulinum toxin B (BttxB) and Tetanus neurotoxins. The buforins are useful for treating Botulinum or tetanus intoxication by administering a composition comprising a buforin to the subject prior to the contact with BtxB or tetanus intoxication. Antibodies specific for buforins are useful for detecting buforins by forming immunocomplexes. The buforins have improved circulatory half-life, solubility, resistance to degradation and interaction with the active site of the toxin
Cleavage-site
                                                                                                                                                                                          fluorescence resonant energy transfer assay; clostridial neurotoxin detection; food.
                                                                                                                                                                                                                    Clostridial neurotoxin substrate; botulinum neurotoxin substrate; FRET; fluorescence resonant energy transfer assay; quenched-signal;
                                                                                                                                                                                                                                                                                                        Clostridial
                                                                                                                                                                                                                                                                                                                                                            02-SEP-2002
                                                                                                                                                                                                                                                                                                                                                                                                                 AA015163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAO15163 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 40 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; Page 5; 47pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Novel peptides capable of inhibiting the enzymatic activity of Botulinum toxin B, and Tetanus neurotoxins useful for preventing or treating toxic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2001-102250/11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Garcia GE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       23-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Buforin; Botulinum tox antibacterial; VAMP2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         08-MAR-2001
                                                       Modified-site
                                                                                                                                     Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   poisoning such as Botulinum toxin and tetanus poisoning.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11-MAY-2000; 2000WO-US012909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200069895-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Unidentified.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VAMP2 peptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAB48582;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (USSA ) US DEPT OF THE ARMY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 LSELDDRADALQAGASXFEXSAAKLKRKYWWKNLK 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK
                                                                                                                                                                                                                                                                                                     neurotoxin protease substrate peptide 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gordon RK,
                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
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     20.
                                                                              Location/Qualifiers
                               /note= "N-fluoresceinyl-glycine"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 toxin B; BttxB; Tetanus neurotoxin; endoprotease;
12; synaptobrevin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Moorad DR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 170; DB
Pred. No. 5.2e
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Doctor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                40
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
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RABSULT 5
AAB39482
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XX AAB34
AC AAB3
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AC AAB3
XX BAB3

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Best Local S
Matches 33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The invention comprises clostridial neurotoxin substrate peptides which can serve as fluorescence resonant energy transfer assay (FRET) or quenched-signal substrates in assays for the proteolytic activities of clostridial neurotoxins. The invention further comprises Clostridium botulinum neurotoxin substrate peptides that can serve as immobilised substrates (i.e. bound to a solid phase) in assays for the proteolytic activities of clostridial neurotoxins. The clostridial (including the Clostridium botulinum) neurotoxin substrate peptides are useful for detecting the presence of clostridial neurotoxins in a sample (e.g. food or an environmental sample). The present amino acid sequence represents a clostridial neurotoxin substrate peptide of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Substrate useful in e.g. an assay clostridial neurotoxin, comprises
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Schmidt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25-SEP-2000; 2000US-0235050P
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200225284-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 24; Page 15; 48pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        28-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                               Human; secreted protein; diagnosis; cytostatic; immunosuppressive; nootropic; neuroprotective; antiviral; antiallergic; hepatotropic; antidiabetic; antiinflammatory; antivicer; vulnerary; anticonvulsant; antibacterial; antifungal; antiparasitic; cardiant; gene therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gene 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAB39482 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (USME-) US MEDICAL RES INST INFECTIOUS DISEASES
      26-MAR-1999;
                                                            23-MAR-2000; 2000WO-US007724.
                                                                                                                        05-OCT-2000
                                                                                                                                                                                 WO200058340-A2
                                                                                                                                                                                                                                                                                                                            cardiovascular disorder; neurological disease;
                                                                                                                                                                                                                                                                                                                                                         food additive; preservative; chromosofemale reproductive system disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   02-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAB39482;
                                                                                                                                                                                                                                                                                                   infection.
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l Similarity 94.3%;
33; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LSELDDRADALQAGASXFEXSAAKLKRKYWWKNLK 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK 38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Stafford RG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   secreted protein homologous amino acid sequence
      99US-0126510P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note= "The peptide is cleaved between these two residues by the clostridial neurotoxin"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        54
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Pred. No. 5.5e-18;
0; Mismatches 2
                                                                                                                                                                                                                                                                                                                                                                                            chromosome identification;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               for the protease activity of modified peptide or protein.
                                                                                                                                                                                                                                                                                                                                                               immune disorder; wound
                                                                                                                                                                                                                                                                                                                                   infectious disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 42,
                                                                                                                                                                                                                                                                                                                                                               cancer;
ound healing;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             #141
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RESULT 6
AAR86821
IID AAR8
XX AAR8
XX AAR8
XX VAMP
DT 15-A
DT 15-A
CX VAMP
XX VAMP
XX VAMP
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XX OS
PD 14-I
XX PP 02-J
XX O3-J-I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CC ARB39484 represent human secreted polypeptide sequences and protesins of invention. Human secreted protesins have activities based on the tissues and cells the genes are expressed in Example of activities include: CC cytostatic; immunosuppressive; nootropic; neuroprotective; antivital; crowdistatic; immunosuppressive; nootropic; neuroprotective; antivities; and cells the polypucleotides and polypeptides are useful for preventing, antipolarastic; and cardiant. The polypucleotides and polypeptides are useful for preventing, crating or ameliorating a medical condition in e.g. humans, mice, crabbits; goats, horses, cats, dogs, chickens or sheep. The polypeptides can also be used as a food additive or preservative to increase or consoned identification. They are also useful as probes for diagnosing a also porder related to the female reproductive system, particularly breast and ovarian cancer. They are also useful as probes for diagnosing agonists are useful in the gene therapy of breast and ovarian cancer; (b) immune disorders; (c) cardiovascular disorders; (d) wound healing; (e) neurological diseases; and (f) confections diseases such as viral, bacterial, fungal and parasitic infections. AAC74328 to AAC74336 and AAB39401 represent sequences used in the exemplification of the present invention
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Best Local S
Matches 33
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pifty nucleic acid molecules encoding human secreted proteins, useful the prevention, treatment and diagnosis of cancer, immune disorders, cardiovascular disorders and neurological diseases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure; Page 390; 391pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (HUMA-) HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        07-JAN-2000; 2000US-0174850P
                                                                                                                                                                                                                                                                                                                                             AAR86821 standard; peptide; 62
                                                                                                                                                                      neurotransmitter;
antibody; detection
                                                                                                                                                                                        VAMP; vesicle-associated membrane protein; SNAP-25;
neurotransmitter; neurotoxin; botulinum; botulism; of
                                                                                                                                                                                                                                                                           15-AUG-1996
                                                                                                                                                                                                                                                                                                            AAR86821;
                                                                     14-DEC-1995
                                                                                                      WO9533850-A1
                                                                                                                                                                                                                                            VAMP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        polymucleotide sequences given in AAC74337 to AAC74386 encode
an secreted proteins given in AAB39402 to AAB39451. AAB39452 to
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     l Similarity
33; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LSELDDRADALQAGASXFEXSAAKLKRKYWWKNLK 35
                                                                                                                                                                          detection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ΑA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                             (first entry)
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                                                                                                                                                                                                                                          residues 33-94.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98.3%;
94.3%;
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                                                                                                                                                                          assay.
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Pred. No. 7.3e-18
0; Mismatches
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                                                                                                                                                                                              substrate;
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03-JUN-1994;

94GB-00011138 95WO-GB001279.

02-JUN-1995;

(MICR-) MICROBIOLOGICAL RES AUTHORITY. (CAMR-) CAMR CENT APPLIED MICROBIOLOGY & RES

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Best Local 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              involved in neurotransmitter release. Antibodies are used in assays which detect cleaved but not uncleaved substrate. Tetanus toxin cleaves the protein VAMP (vestcle-associated membrane protein) at an identical site to that of botulinum toxin type B (BONT/B). The specificities of the endopeptidase activities of the two toxins however differ in the minimum peptide substrate size required for cleavage. While BONT/B requires peptide substrates of 30-35 residues in length for optimal cleavage, the requirement for tetanus toxin is peptide substrates of 50 residues in length. The present sequence, VAMP isoform-1 residues 33-94, is a suitable substrate for tetanus toxin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Assay for botulinum or tetanus toxin - by combining test cpd. \mbox{\tt w} substrate which is cleaved by the toxin, and antibody specific cleaved but not uncleaved substrate.
                                                                                                                                                                                                                                                                                                                                     Human;
spinal
                                                                                                                                                                                                                                                                                                                                                                                  Human Protein P19065,
                                                                                                                                      14-AUG-2001; 2001US-0312147P
01-NOV-2001; 2001US-0346382P
26-NOV-2001; 2001US-0333347P
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                                                                                                                                                                                                                                                                                                                                                                                                                                             ADE57598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The botulinum neurotoxins possess highly specific zinc-endopeptidase activities within their light sub-units. Depending on the neurotoxin type these act to cleave small proteins within the nerve cell which are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 1996-040249/04
                   WPI; 2003-268312/26.
GENBANK; P19065.
                                                                                            (GEHO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADE57598 standard; protein; 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 3; Page 28; 48pp; English.
                                                               Woolf
                                                                                                                                                                                                    14-AUG-2002; 2002WO-US025765
                                                                                                                                                                                                                                27-FEB-2003
                                                                                                                                                                                                                                                            WO2003016475-A2
                                                                                                                                                                                                                                                                                          Homo sapiens.
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                                                                                                                                                                                                                                                                                                                     pain; neuronal tissue; gene therapy;
segmental nerve injury; chronic constriction injury; CCI;
l nerve injury; SNI; Chung.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           33;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 LSELDDRADALQAGASXFEXSAAKLKRKYWWKNLK 35
                                                                                            GEN HOSPITAL
BAYER AG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LSELDDRADALQAGASQFESSAAKLKRKYWWKNLK 62
                                                              D'urso D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hallis B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98.3%;
                                                                                                            CORP
                                                                                                                                                                                                                                                                                                                                                                                SEQ ID NO 3460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     James BAF,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 170; DB Pred. No. 8.6e 0; Mismatches
                                                              7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                               Costigan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Quinn CP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 2;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 62;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
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Woolf C, (GEHO)

D'urso D,

Befort K,

Costigan

Z

GEN HOSPITAL CORP. BAYER AG.

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ADE57612

ADE57612

ID ADE52

AC ADE5

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      compliance to pain and a method for identifying a compound that regulates the expression of the polynucleotide sequence that is differentially expressed in neuronal tissue of a first animal subjected to pain, a method for identifying an agent that is differentially expressed in neuronal tissue of a first animal subjected to pain, a method for identifying a compound which regulates the expressed in an animal subjected to pain, a method for identifying a compound that regulates the activity of one or more of the compound that regulates the activity of one or more of the polynucleotides, a method for producing a pharmaceutical composition, a method for identifying a compound or small molecule that regulates the activity in an animal of one or more of the polynucleotides given in the specification, a method for identifying a compound useful in treating pain and a pharmaceutical composition composition to the polypeptides given in the specification and a pharmaceutical composition and a pharmaceutical composition of polypeptides or their antibodies. The polynucleotide or the compound that modulates its activity is useful for preparing a medicament for treating pain (e.g. spinal segmental nerve injury (Chung), chronic constriction the sequence data for this patent did not form part of the printed specification, but was obtained in electronic form directly from WIPO at frame in in intended in electronic form directly from WIPO at frame in intended in the sequences.
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Best Local
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                                                                                                                                                                         14-AUG-2001; 2001US-0312147P.
01-NOV-2001; 2001US-0346382P.
26-NOV-2001; 2001US-0333347P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New composition comprising two or more isolated polypeptides, useful for preparing a medicament for treating pain in an animal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Rat; pain; neuronal tissue; gene therapy; spinal segmental nerve injury; chronic constriction injury; CCI; spared nerve injury; SNI; Chung.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Rat Protein Q64357,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADE57612 standard; protein; 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 115 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO2003016475-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Rattus norvegicus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    specification, but was obtained in electr
ftp.wipo.int/pub/published_pct_sequences.
                                                                                                                                                                                                                                                                                                                                                                                                 27-FEB-2003.
                                                                                                                                                                                                                                                                                                                     14-AUG-2002; 2002WO-US025765
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQ ID NO 3474.
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Pred. No. 1.7e-17;
0; Mismatches 2
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GENBANK;

WPI; 2003-268312/26

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RESULT 9
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ID ADE6
XX ADE60837
AC ADE7
XX 29-
XX Hur
KW Hur
KW SE
XX SE
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The sequence data for this patent did not form part of the printed specification, which is differentially expressed during pain. Note:
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Best Local (
   14-AUG-2001;
01-NOV-2001;
26-NOV-2001;
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                                                                                                                                                                                                                                                                                    WO2003016475-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human Protein
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                                                                                                                                          14-AUG-2002;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             59
                                                                                                                                                                                                                                                                                                                                                                                                            pain; neuronal tissue; gene therapy;
segmental nerve injury; chronic constriction injury; CCI;
nerve injury; SNI; Chung.
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       2001US-0312147P.
2001US-0346382P.
2001US-0333347P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AA;
                                                                                                                                                 2002WO-US025765.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ID NO 6743
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Comprising the vector, a method for identifying a nucleotide, a host cell comprising the vector, a method for identifying a nucleotide sequence which is differentially regulated in an animal subjected to pain and a cc which is differentially regulated in an animal subjected to pain and a cc whit to perform the method, an array, a method for identifying an agent that increases or decreases the expression of the polynucleotide sequence that is differentially expressed in neuronal tissue of a first animal cc subjected to pain, a method for identifying a compound which regulates the expression of a polynucleotide sequence which is differentially cc expressed in an animal subjected to pain, a method for identifying a compound that regulates the activity of one or more of the compound that regulates the activity of one or more of the compound that regulates the activity of an expressed in an animal of one or more of the polypeptides given in the capture of the polypeptides given in the composition, a method for identifying a compound useful in treating compound and a pharmaceutical composition comprising the one or more composition and a pharmaceutical composition composition that regulates its activity is useful for preparing a medicament for treating compound (e.g. spinal segmental nerve injury (Chung), chronic constriction contriction constriction injury (CCI) and spared nerve injury (SNI) in an animal (e.g. gene contriction) which is differentially expressed during pain. Note: The sequence data for this patent did not form part of the printed of fruity in the specification, but was obtained in electronic form directly from WIPO at the contriction of the printed of the printed of the specification, but was obtained in electronic form directly from WIPO at the contriction of the printed of the 
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GENBANK;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New composition comprising two or more isolated polypeptides, useful for preparing a medicament for treating pain in an animal.
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(FARB )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 or human polynucleotides or a polynucleotide which represents a fraderivative or allelic variation of the nucleic acid sequence. Also
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                                                     [tp.wipo.int/pub/published_pct_sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              invention discloses a composition comprising two
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BAYER AG.
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RESULT 10
ADE57606
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XX ADE57
XX ADE57
XX Humar
XX Humar
XX Humar
XX Spare
XX Spare
XX Spare
XX Homo
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Best Local Similarity
Matches 33; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Protein
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                                                                                                                                                                                                                                                                                                                                                     pain; neuronal tissue; gene therapy; segmental nerve injury; chronic constriction injury; CCI;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                       injury; SNI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           P19065,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    protein; 115 AA.
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94.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQ ID
                                                                                                                                                                                                                                                                                                                     Chung
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Pred. No. 1.7e-17;
0; Mismatches 2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3468
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RESULT 11
ADE60829
ID ADE60
XX ADE60
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CC claimed are a vector comprising the movel polynucleotide, a host cell comprising the vector, a method for identifying a nucleotide sequence CC which is differentially regulated in an animal subjected to pain and a CC kit to perform the method, an array, a method for identifying an agent that is differentially expressed in neuronal tissue of a first animal cC that is differentially expressed in neuronal tissue of a first animal cC the expression of a polynucleotide sequence which is differentially expressed in neuronal tissue of a first animal cC expressed in an animal subjected to pain, a method for identifying a compound which regulates the expressed in an animal subjected to pain, a method for identifying a compound that regulates the activity of one or more of the polynucleotides, a method for producing a pharmaceutical composition, a cc method for identifying a compound useful in treating pain and a pharmaceutical composition comprising the one or more cC specification, a method for identifying a compound useful in treating pain and a pharmaceutical composition comprising the one or more cC polypeptides or their antibodies. The polynucleotide or the compound that cC modulates its activity is useful for preparing a medicament for treating cpain (e.g. spinal segmental nerve injury (Chung), chronic constriction cinjury (CC) and spared nerve injury (SNI) in an animal (e.g. gene charapy). The sequence presented is a human protein (shown in Table 2 of the specification, which is differentially expressed during pain. Note: The sequence data for this patent did not form part of the printed of the printed specification, but was obtained in electronic form directly from WIPO at
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Best Local :
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01-NOV-2001; 2001US-0346382P.
26-NOV-2001; 2001US-0333347P.
                                                                                                                       Rat; pain; neuronal tissue; chronic constriction injury;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 1; Page; 1017pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New composition comprising two or more isolated polypeptides, useful preparing a medicament for treating pain in an animal.
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                                                          Rattus norvegicus
                                                                                                                                                                                                                             Rat Protein Q64357,
                                                                                                                                                                                                                                                                                               29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                     ADE60829 standard; protein; 115 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ftp.wipo.int/pub/published_pct_sequences.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14-AUG-2002; 2002WO-US025765
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 Similarity
33; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 LSELDDRADALQAGASXFEXSAAKLKRKYWWKNLK 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           D'urso D,
                                                                                                                                                            neuronal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                       tissue; gene therapy; spinal segmental nerve injury; n injury; CCI; spared nerve injury; SNI; Chung.
                                                                                                                                                                                                                          SEQ ID NO 6741.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98.3%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 170; DB 7;
Pred. No. 1.7e-17;
0; Mismatches 2
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ADE57600
ID ADE5
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AC ADE5
XX
AC ADE5
XX
AC 29-J
DT 29-J
XX
AX Rat
XX
Rat;

29-JAN-2004

(first entry)

ADE57600 standard;

protein; 115 AA

Rat Protein

Q64357,

SEQ ID

NO 3462

Rat; pain; neuronal tissue; gene therapy; spinal segmental nerve

injury;

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RESULT 12
                                                                                                                                                                                                                                                                                 that is differentially expressed in neuronal tissue of a first animal control of the differentially expressed in neuronal tissue of a first animal subjected to pain, a method for identifying a compound which regulates the expressed in an animal subjected to pain, a method for identifying a compound that regulates the activity of one or more of the polymucleotides, a method for producing a pharmaceutical composition, a method for identifying a compound or small molecule that regulates the activity in an animal of one or more of the polympetides given in the specification, a method for identifying a compound useful in treating comparising and a pharmaceutical composition comprising the one or more polympetides or their antibodies. The polymucleotide or the compound that modulates its activity is useful for preparing a medicament for treating modulates its activity is useful for preparing a medicament for treating compain (e.g. spinal segmental nerve injury (Chung), chronic constriction injury (CCI) and spared nerve injury (SNI)) in an animal (e.g. gene the sequence presented is a rat protein (shown in Table 2 of the sequence data for this patent did not form part of the printed specification, but was obtained in electronic form directly from WIPO at
                                                                                                                                              Matches
                                                                                                                                                               Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             or human polynucleotides or a polynucleotide which represents a fragment, derivative or allelic variation of the nucleic acid sequence. Also claimed are a vector comprising the novel polynucleotide, a host cell comprising the vector, a method for identifying a nucleotide sequence which is differentially regulated in a animal subjected to pain and a kit to perform the method, an array, a method for identifying an agent that increases or decreases the expression of the polynucleotide sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14-AUG-2001; 2001US-0312147P
01-NOV-2001; 2001US-0346382P
26-NOV-2001; 2001US-0333347P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 1; Page; 1017pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New composition comprising two or more isolated polypeptides, useful for preparing a medicament for treating pain in an animal.
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                                                                                                                                                                                                                           Sequence 115 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14-AUG-2002;
                                                                                                                                                                                                                                                                  ftp.wipo.int/pub/published_pct_sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GEHO ) GEN HOSPITAL
(FARB ) BAYER AG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      invention discloses a composition comprising two or more isolated rathuman polynuclectides or a polynuclectide which represents a fragment,
                                                             59
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W
                                                                                                                                                               Similarity
                                                                                                  LSELDDRADALQAGASXFEXSAAKLKRKYWWKNLK 35
                                                             LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     D'urso D,
                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2002WO-US025765
                                                                                                                                                                  98.3%;
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                                                                                                                                              Score 170; DB 7;
Pred. No. 1.7e-17;
0; Mismatches 2
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                                                                                                                                                                                   Length 115;
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                                                                                                                                                Gaps
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ADE57
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AC
AC
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                                                                                                                                                                                                                                                                                                                                                    The invention discloses a composition comprising two or more isolated rat or human polynucleotides or a polynucleotide which represents a fragment, comprising the or allelic variation of the nucleic acid sequence. Also claimed are a vector comprising the novel polynucleotide, a host cell comprising the vector, a method for identifying a nucleotide sequence which is differentially regulated in an animal subjected to pain and a composition is differentially repressed in neuronal tissue of a first animal composition is differentially expressed in neuronal tissue of a first animal composition of a polynucleotide sequence that is differentially expressed in neuronal tissue of a first animal compound that regulates the expression of the polynucleotide sequence the expressed in an animal subjected to pain, a method for identifying a compound which regulates compound that regulates the activity of one or more of the polynucleotides, a method for producing a pharmaceutical composition, a compound that regulates the activity of an expressed in an animal of one or more of the polypeptides given in the composition, a method for identifying a compound useful in treating pain and a pharmaceutical composition comprising the one or more complypeptides or their antibodies. The polynucleotide or the compound that method for identifying a compound useful in treating companies its activity is useful for preparing a medicament for treating pain. Note: The sequence data for this patent did not form part of the printed contraction, but was obtained in electronic form directly from WIPO at the specification, but was obtained in electronic form directly from WIPO at the specification which is differentially expressed during pain. Note:
                                                                                                                                                                                      Ş
                                                                                                         RESULT 13
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Best Local :
                                                                                                                                                                                                                                      Matches
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01-NOV-2001; 2001US-0346382P.
26-NOV-2001; 2001US-0333347P.
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 29-JAN-2004
                                    ADE57604;
                                                                                                                                                                                                                                                                                                          Sequence 115
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         preparing a medicament
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2003-268312/26.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 chronic constriction injury; CCI; spared nerve injury; SNI; Chung
                                                                       ADE57604 standard;
                                                                                                                                                                                                                                                                                                                                          ftp.wipo.int/pub/published_pct_sequences.
                                                                                                                                                               59
                                                                                                                                                                                                                                    33;
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                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                            LSELDDRADALQAGASXFEXSAAKLKRKYWWKNLK 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       D'urso D,
                                                                                                                                                                 LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK
                                                                                                                                                                                                                                      Conservative
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 (first entry)
                                                                       protein; 115
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                                                                                                                                                                                                                                                      98.3%;
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                                                                                                                                                                                                                                  Score 170; DB 7; I
Pred. No. 1.7e-17;
0; Mismatches 2;
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RESULT 14
ADE57596
ID ADE57

ADE57596 standard; protein; 115

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                                                                                                                                                                                                                                   comprising the vector, a method for identifying a nucleotide, a host cell comprising the vector, a method for identifying a nucleotide sequence which is differentially regulated in an animal subjected to pain and a comprising the method, an array, a method for identifying an agent that increases or decreases the expression of the polynucleotide sequence that is differentially expressed in neuronal tissue of a first animal cubjected to pain, a method for identifying a compound which regulates the expression of a polynucleotide sequence which is differentially expressed in neuronal tissue of a first animal compound that regulates the activity of one or more of the polynucleotides are regulated for pain, a method for identifying a compound that regulates the activity of one or more of the polynucleotides, a method for producing a pharmaceutical composition, a method for identifying a pharmaceutical composition, a perification, a method for identifying a compound useful in treating specification, a method for identifying a compound useful in treating companiant and a pharmaceutical composition comprising the one or more of polypeptides or their antibodies. The polynucleotide or the compound that regulates the collapse or their antibodies. The polynucleotide or the compound that the polypeptides or their antibodies. The polynucleotide or the compound that the polypeptides or the sequence presented is a rat protein (shown in Table 2 of the sequence data for this patent did not form part of the printed of the sequence data for this patent did not form part of the printed at the printed is a rat protein form directly from WIPO at the polypeptides of the printed in the sequence of the printed in 
                                                                                      Best Loc
Matches
                                                                                                                              Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 1; Page; 1017pp; English.
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01-NOV-2001; 2001US-0346382P
26-NOV-2001; 2001US-0333347P
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New composition comprising two or more isolated polypeptides, useful for preparing a medicament for treating pain in an animal.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (GEHO )
(FARB )
                                                                                                                                                                           Sequence 115
                                                                                                                                                                                                                     specification, but was obtained in electr
ftp.wipo.int/pub/published_pct_sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       or human polynucleotides or a polynucleotide which represents derivative or allelic variation of the nucleic acid sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The invention discloses a composition comprising two or more isolated rat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENBANK; Q64357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14-AUG-2002;
                                                                                                         Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Protein Q64357,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         pain; neuronal tissue; gene therapy; spinal segmental nerve injury;
nic constriction injury; CCI; spared nerve injury; SNI; Chung.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2003-268312/26
                                                                                      l Similarity
33; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GEN HOSPITAL
BAYER AG.
                                LSELDDRADALQAGASXFEXSAAKLKRKYWWKNLK
    LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2002WO-US025765
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                                                                                                           98.3%;
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                                                                                    Score 170; DB 7;
Pred. No. 1.7e-17;
0; Mismatches 2;
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    93
                                                 35
                                                                                                                                   Length 115;
                                                                                             Indels
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                                                                                           Gaps
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ADE57596;

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that is differentially expressed in neuronal tissue of a first animal countries of the pain, a method for identifying a compound which regulates the expression of a polynuclectide sequence which is differentially expressed in an animal subjected to pain, a method for identifying a compound that regulates the activity of one or more of the polynuclectides, a method for producing a pharmaceutical composition, a compound of for identifying a compound or small molecule that regulates the activity in an animal of one or more of the polypeptides given in the composition, a method for identifying a compound useful in treating specification, a method for identifying a compound useful in treating composition and a pharmaceutical composition comprising the one or more conjugates its activity is useful for preparing a medicament for treating companial (e.g. spinal segmental nerve injury (Chung), chronic constriction conjury (CCI) and spared nerve injury (SNI)) in an animal (e.g. gene conjury (CCI) and spared nerve injury (SNI)) in an animal (e.g. gene conjury (CCI) and spared nerve injury (SNI)) in an animal (e.g. gene conjury (CCI) and spared nerve injury (SNI)) in an animal (e.g. gene conjury (CCI) and spared nerve injury (SNI)) in an animal (e.g. gene conjury (CCI) and spared nerve injury (SNI)) in an animal (e.g. gene conjury (SN
                                                                                                                      Matches
                                                                                                                                                                                                    Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14-AUG-2001; 2001US-0312147P.
01-NOV-2001; 2001US-0346382P.
26-NOV-2001; 2001US-0333347P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             which is differentially regulated in an animal subjected to pain and a kit to perform the method, an array, a method for identifying an agent that increases or decreases the expression of the polynucleotide sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New composition comprising two or more isolated polypeptides, useful for preparing a medicament for treating pain in an animal.
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chronic constriction
                                                                                                                                                                                                                                                                                                       Sequence 115 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14-AUG-2002; 2002WO-US025765.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             29-JAN-2004
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1 LSELDDRADALQAGASXFEXSAAKLKRKYWWKNLK
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                                                                                                                                                                  Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
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                                                                                                                                                             98.3%;
94.3%;
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                                                                                                            Score 170; DB 7; :
Pred. No. 1.7e-17;
0; Mismatches 2;
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                                                                                                                                                                                                         Length 115;
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Query Match Best Local S Matches 33

l Similarity 33; Conserv

98.3%;

Score 170; DB 7; Pred. No. 1.7e-17; 0; Mismatches 2

Length 115; Indels

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Gaps

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115 AA;

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ADSTIGNATION TO PART WAY SPAIRS FOR 
                                                                                            The invention discloses a composition comprising two or more isolated rat or human polynucleotides or a polynucleotide which represents a fragment, comprising the or allelic variation of the nucleic acid sequence. Also claimed are a vector comprising the novel polynucleotide, a host cell comprising the vector, a method for identifying a nucleotide sequence which is differentially regulated in an animal subjected to pain and a composition the method, an array, a method for identifying an agent that is differentially expressed in neuronal tissue of a first animal composited to pain, a method for identifying an agent the expression of the polynucleotide sequence that is differentially expressed in neuronal tissue of a first animal compound that regulates the activity of one or more of the compound that regulates the activity of one or more of the polynucleotides, a method for pain, a method for identifying a compound that regulates the activity of an animal of one or more of the polynucleotides given in the composition, a method for identifying a pharmaceutical composition, a periodic or make a polynucleotide sequence which is differentially compound that regulates the activity in an animal of one or more of the polypetides given in the composition, a method for identifying a pharmaceutical composition, a periodic or the polypetides or their antibodies. The polynucleotide or the compound that polypetides or their antibodies. The polynucleotide or the compound that one or more composition to more composition of the principle of the pain and a spared nerve injury (CNUM)) in an animal (e.g. gene constriction the sequence data for this patent did not form part of the printed construction 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human;
spinal
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01-NOV-2001; 2001US-0346382P.
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segmental nerve injury; chronic constriction injury; CCI;
nerve injury; SNI; Chung.
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BAYER AG.
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Maximum Match 100%
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Maximum DB seq length: 200000000
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Match Length
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1: /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*
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3: /cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
4: /cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
5: /cgn2_6/ptodata/1/iaa/FCTUS_COMB.pep:*
5: /cgn2_6/ptodata/1/iaa/backfiles1.pep:*
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Gapop 10.0 , Gapext 0.5
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173
       1 LSELDDRADALQAGASXFEXSAAKLKRKYWWKNLK 35
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Copyright (c) 1993 - 2004 Compugen Ltd.
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                                             US-08-760-001-9
US-08-760-011-11
US-09-015-960-11
US-09-015-960-11
US-09-534-572-9
US-09-534-572-16
US-09-53-4-572-8
US-09-570-022-16
US-09-570-023-8
US-09-570-001-8
US-09-570-001-8
US-09-570-018-9
US-09-570-018-9
US-09-58-760-8
US-09-58-760-8
US-09-58-157-38-4
US-08-409-373B-4
US-08-621-018B-10
US-09-483-665-6
US-08-621-018B-61
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US-08-621-018B-61
US-08-621-018B-65
US-08-621-018B-61
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sequence 9, Appli
sequence 11, Appl
sequence 11, Appli
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sequence 16, Appli
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US-09-962-360B-10	US-09-483-665-8	US-08-621-018B-8	US-09-483-665-2	US-08-621-018B-2	US-08-409-373B-2	US-08-409-373B-2	US-09-513-999C-5451	US-09-621-976-5656	US-08-819-286-13	US-09-621-976-6274	US-08-819-286-5	US-09-962-360B-3	US-09-430-656-28	US-09-513-783A-30	US-09-430-656-30	US-09-513-783A-28	US-08-393-985-14
Sequence 10,	-	œ	Sequence 2, A	Sequence 2, A	Sequence 2, A	Sequence 2, A	Sequence 5451	Sequence 5656	Sequence 13,	274	Sequence 5, A	Sequence 3, A	`	-	•	Sequence 28,	Sequence 14,
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ALIGNMENTS

RESULT 1

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Sequence 9, Application Us/Us/US/US/US/SEQUENCE 10. 5962637
GENERAL INFORMATION:
APPLICANT: Shone, Clifford C.
APPLICANT: Hallis, Bassam
APPLICANT: James, Benjamin A. F.
APPLICANT: Quinn, Conrad P.
TITLE OF INVENTION: TOXIN ASSAY
                                                                             US-08-760-001-9
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                                                                                                                                       TELEPHONE: 202-371-2600
TELEPAX: 202-371-2543
INFORMATION FOR SEQ ID NO: 9
SEQUENCE CHARACTERISTICS:
LENGTH: 35 amino acids
TYPE: amino acid
STRANDEDNESS: single
                 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/GB
APPLICATION NUMBER: PCT/GB
EILING DATE: 02-UN-1995
ATTORNEY/AGENT INFORMATION:
NAME: Esmond, Robert W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY: USA
ZIP: 20005-1934
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                 TOPOLOGY: 111
MOLECULE TYPE:
                                                                                                                                                                                                                                                                   NAME: Esmond, Robert W.
REGISTRATION NUMBER: 32,893
REFERENCE/DOCKET NUMBER: 15
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-2600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION DATA:
APPLICATION NUMBER: US
FILING DATE: Herewith
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CITY: Washington
STATE: DC
COUNTRY: USA
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                                                                                                                           linear
                                                                                                   peptide
                   98.3%;
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Score 170; DB 2; Length 35; Pred. No. 3.7e-19; O; Mismatches 2; Indels
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Matches

Conservative

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Gaps

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35

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GENERAL INFORMATION:
APPLICANT: Shone, Clifford C.
APPLICANT: Hallis, Bassam
APPLICANT: James, Benjamin A. F.
APPLICANT: Quinn, Conrad P.
TITLE OF INVENTION: TOXIN ASSAY
NUMBER OF SEQUENCES: 11
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                          US-09-015-960-9
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US-08-760-001-11
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                                                                                                                                                                  Sequence 9, Application US/09015960 Patent No. 6043042
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEPHONE: 202-371-260
TELEFAX: 202-371-2543
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: 15
TELECOMMUNICATION INFORMATION: 202-371-2600
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM CC COMPOSIBLE
COMPUTER: Floppy disk
COMPUTER: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
CURRENT APPLICATION DATA:
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APPLICANT: James, Benjamin A. F.
APPLICANT: Quinn, Conrad P.
TITLE OF INVENTION: TOXIN ASSAY
NUMBER OF SEQUENCES: 11
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 02-JUN-1995
ATTORNEY/AGENT INFORMATION:
NAME: Esmond, Robert W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: amino acid
STRANDEDNESS: sir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME: Esmond, Robert W. REGISTRATION NUMBER: 32,893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: FILING DATE: Herewi CLASSIFICATION: 530
                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE: Sterne, Kessler, Goldstein & Fox, P.L.L.C. STREET: 1100 New York Ave., N.W., Suite 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ENGTH:
                                                                                                                                                                                                                                                                                                                                                          33;
                                                                                                                                                                                                                                                                                                       1 LSELDDRADALQAGASXFEXSAAKLKRKYWWKNLK 35
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                 linear
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Sterne, Kessler, Goldstein & Fox, P.L.L.C
                                                                                                                                                                                                                                                                                                                                                                                                                                                   peptide
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Pred. No. 3.7e-19;
Mismatches 2;
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Patent No. 6
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Best Local Similarity
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 35 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
                                                                                                                   COUNTRY: USA
ZIP: 20005-3934
COMPUTER READABLE FORM:
COMPUTER: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                               APPLICANT: James, Benjamin A. F.
APPLICANT: Quinn, Conrad P.
TITLE OF INVENTION: TOXIN ASSAY
NUMBER OF SEQUENCES: 11
CORRESPONDENCE ADDRESS:
ADDRESSEE: Sterne, Kessler, Goldstein & Fox, P.L.L.C.
STREET: 1100 New York Ave., N.W., Suite 600
CITY. Washington
               PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Shone, Clifford C. APPLICANT: Hallis, Bassam
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REFERENCE/DOCKET NUMBER: 15:
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-2600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTORNEY/AGENT INFORMATION:
NAME: Esmond, Robert W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM FC-DOS/MS-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
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ATTORNEY/AGENT INFORMATION:
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APPLICATION NUMBER:
                                                                                                                                                                                                                                                                       STATE: DC
                                                                                                                                                                                                                                                                                 STREET: 1100 New CITY: Washington
                                                                     CLASSIFICATION:
                                                                                                      APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US/09/015,960 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STREET: 1100 New CITY: Washington
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEPHONE:
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                                08/760,001
                                                                                                        US/09/015,960
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Pred. No. 3.7e-19;
Pred. No. 3.7e-19;
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; MOLECULE TYPE: peptide US-09-015-960-11
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APPLICANT: Shone, Clifford C.
APPLICANT: Hallis, Bassam
APPLICANT: James, Benjamin A. F.
APPLICANT: Quinn, Conrad P.
TITLE OF INVENTION: TOXIN ASSAY
NUMBER OF SEQUENCES: 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
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Best Local Similarity
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TELEFAX: 202-371-2543
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                 INFORMATION FOR SEQ ID NO: 9: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER: 08/760,001
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME: Esmond, Robert W.
REGISTRATION NUMBER: 32,893
REFERENCE/DOCKET NUMBER: 15
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION 771 777
                                                                                                                                                                                                                                                                                          REGISTRATION NUMBER: 32,893
REFERENCE/DOCKET NUMBER: 15
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 09/0 FILING DATE: 30-JAN-1998 PRIOR APPLICATION DATA: APPLICATION NUMBER: 08/7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLASSIFICATION:
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 02-JUN-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS
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CITY: W
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                             LENGTH: 35 amino acids TYPE: amino acid STRANDEDNESS: single
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TELEPHONe: Zuz
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TYPE: amino acid
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US-09-534-572-11
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                                                                               Best
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APPLICANT: Shone, Clifford C.
APPLICANT: Hallis, Bassam
APPLICANT: James, Benjamin A. F.
APPLICANT: Quinn, Conrad P.
APPLICANT: Quinn, Conrad P.
TITLE OF INVENTION: TOXIN ASSAY
                                                                                                                                                                                                     TELEFAX: 202-371-2543
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 35 amino acids
                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/760
PRIOR DATE: 30.DEC-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/GB
FILING DATE: 02.-UN-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                         MOLECULE TYPE:
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                                                                                                                                                                                                                                                                                   TELECOMMUNICATION INFORMATION:
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APPLICATION NUMBER: 09/0
FILING DATE: 30-JAN-1998
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                                                                                                                                                       TYPE: amino acid
STRANDEDNESS: sir
TOPOLOGY: linear
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SOFTWARE: Patenti
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REGISTRATION NUMBER:
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No. 6337386
                                                            l Similarity 94.3
33; Conservative
                           1 LSELDDRADALQAGASXFEXSAAKLKRKYWWKNLK 35
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33; Conserv
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LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK 35
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IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
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94.3%;
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                                                          Score 170; DB 3;
Pred. No. 3.7e-19;
0; Mismatches 2
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                                          Sequence 9, Application US/09962360B Patent No. 6762280 GENEAL INFORMATION:
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CURRENT APPLICATION NUMBER: US/09/570,022
CURRENT FILING DATE: 2000-05-12
PRIOR APPLICATION NUMBER: 60/134,446
PRIOR FILING DATE: 1999-05-17
NUMBER OF SEQ ID NOS: 26
SOFTWARE: PATENTIN Ver. 2.1
SEQ ID NO 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/09/570,023
CURRENT FILING DATE: 2000-05-12
NUMBER OF SEQ ID NOS: 14
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 8
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Patent No. 671344
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JENERAL INFORMATION:
APPLICANT: GORDON, RICHARD K.
APPLICANT: MOORAD, DEBORAH R.
APPLICANT: MOORAD, DEBORAH R.
APPLICANT: DOCTOR, BHUPENDRA P.
APPLICANT: GARCIA, GREGORY E.
APPLICANT: MOORA P.
AP
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TITLE OF INVENTION: BUFORIN I AS A SPECIFIC INHIBITOR AND THERAPEUTIC AGENT
TITLE OF INVENTION: FOR BOTULINUM TOXIN B AND TETANUS NEUROTOXINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: GARCIA, GREGORY E.
APPLICANT: GORDON, RICHARD M
APPLICANT: MOORAD, DEBBIE R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURE: OTHER INFORMATION: Description of Artificial Sequence: Synthetic OTHER INFORMATION: VAMP2
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TYPE: PRT
ORGANISM: Homo sapiens
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33; Conservative
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Pred. No. 4.3e-19;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 8, Applic
Patent No. 596263
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: Apple Macintosh Microsoft Word 6 SEQ ID NO 9
                                                                                                                                                                                                                                                                                                                                                             COUNTRY: USA
COUNTRY: USA
ZIP: 20005-3934
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, V:
CURRENT APPLICATION DATA:
CURRENT APPLICATION DATA:
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TITLE OF INVENTION: High Throughput Assays for the Proteolytic Activities of Clostridi
TITLE OF INVENTION: Neurotoxins
FILE REFERENCE: 003/224/SAB
CURRENT APPLICATION NUMBER: US/09/962,360B
CURRENT APPLICATION NUMBER: US/09/962,360B
PRIOR APPLICATION NUMBER: US 60/235,050
PRIOR APPLICATION NUMBER: US 60/235,050
PRIOR PILING DATE: 2001-09-25
NUMBER OF SEQ ID NOS: 12
                                                                                                                                                                                                             APPLICATION NUMBER: US/08,
FILING DATE: Herewith
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
PAPPLICATION NUMBER: PCT/GI
FILING DATE: 02-UN-1995
ATTORNEY/AGENT INFORMATION:
                    TELEFAX: 202-371-2543
[NFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 62 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Schmidt, James J.
APPLICANT: Stafford, Robert
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OTHER INFORMATION: Xaa at 1 is N-fluresceinyl-glycine
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FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
ORGANISM: Artificial sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY: misc_feature
                                                                                                     NAME: Esmond, Robert W.
REGISTATION NUMBER: 32,893
REFERENCE DOCKET NUMBER: 15
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-2600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Shone, Clifford C.
APPLICANT: Hallis Bassam
APPLICANT: James, Benjamin A. F.
APPLICANT: Quinn, Conrad P.
TITLE OF INVENTION: TOXIN ASSAY
NUMBER OF SEQUENCES: 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ENGTH: 42
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADDRESSEE: Sterne, Kessler, Goldstein & Fox, P.L.L.C. STEET: 1100 New York Ave., N.W., Suite 600
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amino acid
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Pred. No. 4
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RESULT 11
US-09-015-960-8
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RESULT 12
US-09-534-572-8
; Sequence 8, Application US/09534572
; Patent No. 6337386
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Best Local S
Matches 33
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APPLICANT: Shone,
                                                                                                                                                                                                                                                                                                               TELEFAX: 202-371-2543
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 62 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TOPOLOGY: 11
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Re-Bease #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Shone, Clifford C.
APPLICANT: Hallis, Bassam
APPLICANT: James, Benjamin A. F.
APPLICANT: Quinn, Conrad P.
TITLE OF INVENTION: TOXIN ASSAY
NUMBER OF SEQUENCES: 11
                                                                                                                                                                                                                                                                                                                                                                                                               ATTORNEY/AGENT INFORMATION:
NAME: Esmond, Robert W.
REGISTRATION NUMBER: 32,893
REFERENCE/DOCKET NUMBER: 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
                                                                                                                                                                                                                                              TOPOLOGY: linear MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                              TELECOMMUNICATION INFORMATION: TELEPHONE: 202-371-2600
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADDRESSEE: Sterne, Kessler, Goldstein & Fox, P.L.L.C. STREET: 1100 New York Ave., N.W., Suite 600
                                                                                                                                                                                                                                                                          STRANDEDNESS:
                                                                                                                                                                                                                                                                                               TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US/09/015,960
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                                                                                                                                                                               Similarity
                                                                                                LSELDDRADALQAGASQFESSAAKLKRKYWWKNLK
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linear
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94.3%;
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Pred. No. 7.1e-19;
0; Mismatches 2;
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Pred. No. 7.1e-19;
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INFORMATION FOR SEQ ID NO: 8
SEQUENCE CHARACTERISTICS:
LENGTH: 62 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: Linear
MOLECULE TYPE: peptide
                                                                                                                                                                                                            Sequence 4, Application US/08409373B Patent No. 5585240 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
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Best Local :
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APPLICANT: Shone, Clifford C.
APPLICANT: Hallis, Bassam
APPLICANT: James, Benjamin A. F.
APPLICANT: Quinn, Conrad P.
APPLICANT: Quinn, Conrad P.
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FILING DATE: 30-JAN-1998
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/76(
FILING DATE: 30-DEC-1996
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/534,572
FILING DATE: Herewith
CLASSIFICATION:
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TITLE OF INVENTION: TO.
NUMBER OF SEQUENCES: 11
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REGISTRATION NUMBER: 32,893
REFERENCE/DOCKET NUMBER: 15:
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-2600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: PCT/C
FILING DATE: 02-JUN-1995
ATTORNEY/AGENT INFORMATION:
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STREET: 31/2
CITY: Palo Alto
STATE: CA
STATE: U.S.
                                                                                             APPLICANT: Stuart, Susan G.
APPLICANT: Hawkins, Phillip R.
APPLICANT: Seilhamer, Jeffrey J.
TITLE OF INVENTION: CELLUBREVIN HOMOLOG
NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
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                                                                                 ADDRESSEE:
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33; Conservative
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                                                               E: Incyte Pharmaceuticals, 3174 Porter Drive
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US-08-409-373B-4
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Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Patent No. 5650280
                     CURRENT APPLICATION DATA;
APPLICATION NUMBER: US/08/409,3:
FILING DATE: 23-MAR-1995
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Luther: Barbara J
REGISTRATION NUMBER: 9F-002
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-855-0555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 4,
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                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
INFORMATION FOR SEQ
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                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Stuart, Susan G.
APPLICANT: Hawkins, Phillip R.
APPLICANT: Seilhamer, Jeffrey J.
TITLE OF INVENTION: CELLUBREVIN HOMOLOG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
LENGTH: 116 amino acids
                                                                                                                                                                                                                   ZIP: 94304
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELECOMMUNICATION INFORMATION: TELEPHONE: 415-855-0555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Luther, Barbara T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION DATA: US,
                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ZIP: 94304
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LIBRARY: GE...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: LDW COMPUTER: LDW COMPUTER: DOS
OPERATING SYSTEM: DOS
OPERATING SYSTEM: DOS
OPERATING DATA: '00/409
                                                                                                                                                                                                                                                                                      STREET: 3174 POI
CITY: Palo Alto
STATE: CA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local
                                                                                                                                                                              COMPUTER: IBM CON OPERATING SYSTEM: SOFTWARE: FastSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: Luther, Barbara J
REGISTRATION NUMBER: 33,954
REFERENCE/DOCKET NUMBER: PF
                                                                                                                                                                                                                                                                       COUNTRY:
                                                                                                                                                                                                                                                                                                                                   ADDRESSEE:
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STRANDEDNESS: sir
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60 LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK 94
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                                                                                                                                                                                                                                                                                                                 E: Incyte Pharmaceuticals,
3174 Porter Drive
                                                                                                                                                                                                                                                                       U.S.
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                                                                                                                                                                                              IBM Compatible
SYSTEM: DOS
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Pred. No. 1.5e-18;
"'-matches 2;
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                                                          PF-0029 US
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Search completed: November Job time: 23,4375 secs
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                                                                                                                                                                                                                           TELEFAX: (415) 324-0880

TELEFAX: (415) 324-0860

INFORMATION FOR SEQ ID NO: 16:
SEQUENCE CHARACTERISTICS:
LENGTH: 116 amin
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
APPLICANT: Scheller, R
TITLE OF INVENTION: ME
TITLE OF INVENTION: ME
NUMBER OF SEQUENCES: 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 16, Appra
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Best Local Similarity
                                                                                                                    Matches
                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                              CLASSIFICATION: 435
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Sholtz, Charles K.
REGISTRATION NUMBER: 38,615
REFERENCE/DOCKET NUMBER: 8600
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version
CURRENT APPLICATION DATA:
                                                                                                                                                                                            TOPOLOGY: linear MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
ADDRESSEE: Dehlinger & Associates
STREET: 350 Cambridge Avenue, Suite 250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IMMEDIATE SOURCE
LIBRARY: GenB
CLONE: X76199
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CITY: Palo Alto
                                                                                                                                   Local
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                                                           60 LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK 94
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   amino acid
   GY: linear
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                                                                                                                                   98.3%;
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              2004, 18:19:41
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                                                                                                                   Score 170; DB 1;
Pred. No. 1.5e-18;
0; Mismatches 2;
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Pred. No. 1.5e-18;
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB
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                                                                                                                                                                                                                                                                                       Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                Score
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           170
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1: /cgn2_6/ptodata/2/pubpaa/US07_PUBCOMB.pep:*

2: /cgn2_6/ptodata/2/pubpaa/US07_NEW PUB.pep:*

3: /cgn2_6/ptodata/2/pubpaa/US06_NEW PUB.pep:*

4: /cgn2_6/ptodata/2/pubpaa/US06_PUBCOMB.pep:*

5: /cgn2_6/ptodata/2/pubpaa/US06_PUBCOMB.pep:*

6: /cgn2_6/ptodata/2/pubpaa/US08_NEW_PUB.pep:*

6: /cgn2_6/ptodata/2/pubpaa/US08_NEW_PUB.pep:*

9: /cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*

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10: /cgn2_6/ptodata/2/pubpaa/US09_PUBCOMB.pep:*

11: /cgn2_6/ptodata/2/pubpaa/US09_PUBCOMB.pep:*

12: /cgn2_6/ptodata/2/pubpaa/US09_PUBCOMB.pep:*

13: /cgn2_6/ptodata/2/pubpaa/US10A_PUBCOMB.pep:*

14: /cgn2_6/ptodata/2/pubpaa/US10B_PUBCOMB.pep:*

15: /cgn2_6/ptodata/2/pubpaa/US10B_PUBCOMB.pep:*

16: /cgn2_6/ptodata/2/pubpaa/US10B_PUBCOMB.pep:*

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18: /cgn2_6/ptodata/2/pubpaa/US10B_PUBCOMB.pep:*

19: /cgn2_6/ptodata/2/pubpaa/US10B_PUBCOMB.pep:*

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10: /cgn2_6/ptodata/2/pubpaa/US10B_PUBCOMB.pep:*

10: /cgn2_6/ptodata/2/pubpaa/US10B_PUBCOMB.pep:*
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Match
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LSELDDRADALQAGASXFEXSAAKLKRKYWWKNLK 35
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      US-09-962-360B-9
US-09-942-024-1
US-09-942-024-1
US-09-942-028-1
US-09-942-098-1
US-09-942-098-1
US-09-942-098-1
US-09-942-098-1
US-09-942-098-1
US-10-261-161-12
US-10-261-161-13
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US-10-263-670-55
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; Publication No. US20030077685A1
; GENERAL INFORMATION:
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US-09-962-360B-9
                                                                      Query Match
Best Local Similarity
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-10-261-161-8	-10-261-161-8	-10-261-161-8	-10-261-161-B	-10-261-161-8	-09-942-098-6	-09-942-098-6	-09-942-098-6	-09-942-098-5	-09-942-098-5	-09-942-098-5	-09-942-024-6	-09-942-024-6	-09-942-024-6	-09-942-024-5	-09-942-024-5	-09-942-024-5	-10-369-493-6	-09-962-360B-	-09-293-670-5	-100-957A-3	-10-100-957A-	-10-261-161-1	-09-942-098-9	-09-942-024-9	-10-467-595-2	-10-357-028-	-10-357-028-	-10-261-161-1	-09-942-098-	-09-942-024-1	100
equence 8	equence 8	equence 8	equence 8	equence B	equence 6	equence 6	equence 6	equence 5	equence 5	equence 5	equence 6	equence 6	equence 6	equence 5	equence 5	equence 5	equence 6	equence 3	equence 5	nce 3	equence 2	equence 1	equence s	equence 9	equence 2	equence 9	equence	equence	equence	equence	A COLUMN
6, App	5, App	4, App	3, App	2, App	5, App	1, App	0, App	9, App	8, App	7, App	<u>ა</u>	1, App	0, App	9, App	8, App	7, App	364, A	, Appl	2, App	,	8, App	0, App	6, App	6, App	7, App	, Appl	, Appl	4, App	9, App	9, App	1 19.50

ALIGNMENTS

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; OTHER INFORMATION: Xaa at 1 is N-fluresceinyl-glycine US-09-962-360B-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Schmidt, James J.
APPLICANT: Stafford, Robert G.
APPLICANT: Stafford, Robert G.
TITLE OF INVENTION: High Throughput Assays for the Proteolytic Activities of Clostridi
TITLE OF INVENTION: Neurotoxins
FILE REFERENCE: 003/224/SAP
CURRENT FILING DATE: US/09/962,360B
CURRENT FILING DATE: 2002-08-19
PRIOR APPLICATION NUMBER: US 60/235,050
PRIOR APPLICATION NUMBER: US 60/235,050
PRIOR FILING DATE: 2001-09-25
NUMBER OF SEQ ID NOS: 12
SOFTWARE: Apple Macintosh Microsoft Word 6.0
SEQ ID NO 9
                                                                                                                                                                                                                                                                 FEATURE:
OTHER INFORMATION: synthetic peptide chosen such that it is cleaved by FEATURE:
NAME/KEY: misc_feature
LOCATION: 1
CHOCATION: 1
                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 42
TYPB: PRT
ORGANISM: Artificial sequence
                             LSELDDRADALQAGASXFEXSAAKLKRKYWWKNLK 35
LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK 38
                                                                                                       98.3%; Score 170; DB 10; Length 42; 94.3%; Pred. No. 2.7e-17; tive 0; Mismatches 2; Indels
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RESULT 4
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Sequence 18, Application US/09942024
Publication No. US20030143650A1
GENERAL INFORMATION:
APPLICANT: Steward, Lance E.
APPLICANT: Fernandez-Salas, Ester
APPLICANT: Acki, Kei Roger
TITLE OF INVENTION: Fret Protease Assays For Botulinum
TITLE OF INVENTION: Serotype A/E Toxins
FILE REFERENCE: P-AR 4803
                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: Fast
SEQ ID NO 17
LENGTH: 116
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Matches
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Publication No. US20030143650A1
GENERAL INFORMATION:
APPLICANT: Steward, Lance E.
APPLICANT: Fernandez-Salas, Ester
APPLICANT: Aoki, Kei Roger
TITLE OF INVENTION: Fret Protease Assays For Botulinum
TITLE OF INVENTION: Serotype A/E Toxins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
APPLICANT: Steward, Lance E.
APPLICANT: Fernandez-Salas, Ester
APPLICANT: Aoki, Kei Roger
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQ ID NOS: 96
SOFTWARE: PastSEQ for Windows Version 4.0
SEQ ID NO 4
LENGTH: 116
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Publication No. US20030143650A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILE REFERENCE: P-AR 4803
CURRENT APPLICATION NUMBER: US/09/942,024
CURRENT FILING DATE: 2001-08-28
NUMBER OF SEQ ID NOS: 96
                                                                                                                                                                                                                                                                                                                                                                                                       09-942-024-17
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CURRENT FILING DATE: 2001-08-28
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILE REFERENCE: P-AR 4803
                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: PRT
ORGANISM: Mus musculus
                                                                                                                                                                                                                                                                                                                                             Local
                                                                                                                                                                                                                                                   60 LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK 94
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Pred. No. 7.7e-17;
0; Mismatches 2;
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Pred. No. 7.7e-17;
                                                                                                                                                                                                                                                                                                                                                             Length 116;
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; ORGANISM: Mus musculus US-09-942-098-17
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US-09-942-098-4
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                                                                                                 FILE REFERENCE: P-AR 4802
CURRENT APPLICATION NUMBER: US/09/942,098
CURRENT FILING DATE: 2001-08-28
NUMBER OF SEQ ID NOS: 96
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 17
LENGTH: 116
TYPE: PRT
                                                                                                                                                                                                                                          Sequence 17, Application US/09942098
Publication No. US20030143651A1
GENERAL INFORMATION:
APPLICANT: Steward, Lance E.
APPLICANT: Fernandez-Salas, Ester
APPLICANT: Aoki, Kei Roger
TITLE OF INVENTION: Fret Protease Assays For Clostridial
TITLE OF INVENTION: Toxins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILE REFERENCE: P-AR 4802
CURRENT APPLICATION NUMBER: US/09/942,098
CURRENT FILING DATE: 2001-08-28
NUMBER OF SEQ ID NOS: 96
NUMBER FastSEQ for Windows Version 4.0
SEQ ID NO 4
LENGTH: 116
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APPLICANT: Steward, Lance E.
APPLICANT: Fernandez-Salas, Ester
APPLICANT: Francez-Salas, Ester
APPLICANT: Aoki, Kei Roger
TITLE OF INVENTION: Fret Protease Assays For Clostridial
TITLE OF INVENTION: Toxins
   Matches
                Query Match
Best Local Similarity
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Best Local (
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CURRENT FILING DATE: 2001-08-28
NUMBER OF SEQ ID NOS: 96
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 18
LENGTH: 116
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TYPE: PR
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33; Conserv
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   Conservative
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                  98.3%;
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Score 170; DB 10;
Pred. No. 7.7e-17;
0; Mismatches 2;
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Pred. No. 7.7e-17;
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; TYPE: PRT
; ORGANISM: Bos taurus
US-09-942-098-18
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APPLICANT: Steward, Lance E.
APPLICANT: Fernandez-Salas, Ester
APPLICANT: Fernandez-Salas, Ester
APPLICANT: Acki, Kei Roger
TITLE OF INVENTION: Fret Protease Assays For Clostridial
TITLE OF INVENTION: Toxins
FILE REFERENCE: P-AR 4802
CURRENT APPLICATION NUMBER: US/09/942,098
CURRENT APPLICATION NUMBER: US/09/942,098
CURRENT FILING DATE: 2001-08-28
NUMBER OF SEQ ID NOS: 96
NUMBER OF SEQ ID NOS: 96
SOFTWARE: FastSEQ for Windows Version 4.0
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APPLICATION NUMBER: US/10/357,028
FILING DATE: 29-Jan-2003
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MUTTY, Lynn E.
TITLE OF INVENTION: CELLUBREVIN HOMOLOGS
NUMBER OF SEQUENCES: 51
                                                      APPLICATION NUMBER: US/09/483,665
FILING DATE: Herewith
APPLICATION UNMBER: 08/621,018
FILING DATE: March 22, 1996
APPLICATION NUMBER: 08/409,373
FILING DATE: March 23, 1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Stuart, Susan G.
Hawkins, Phillip R.
                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
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                                                                                                                                                                                                                                                                                 COMPUTER: IBM Compatible OPERATING SYSTEM: DOS SOFTWARE: FastSEQ Version 1.5
                                                                                                                                                                                                                                                                                                                                                                                                         COUNTRY: U.S.
                                                                                                                                                                                                                                                                                                                                                                                                                                 STATE: CA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADDRESSEE: Incyte Pharmaceuticals, Inc
STREET: 3174 Porter Drive
                 NAME: Hamlet-Cox, Diana REGISTRATION NUMBER: 33
REFERENCE/DOCKET NUMBER: PF-0029-2 DIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Application US/10357028
No. US20030180931A1
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Pred. No. 7.7e-17;
0; Mismatches 2;
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Sequence 12, Application US/10261161

Publication No. US20040072270A1

Publication No. US20040072270A1

GENERAL INFORMATION:
APPLICANT: Fernandez-Salas, Ester
APPLICANT: Steward, Lance E.
APPLICANT: Call-Based Fluorescence Resonance Energy
TITLE OF INVENTION: Transfer (FRET) Assays For Clostridial Toxi
FILE REFERENCE: P-AR 4804

CURRENT Application Number: US/10/261,161

CURRENT Application Number: 2002-09-27

NUMBER OF SEQ ID NOS: 109

SOFTWARE: FastSEQ for Windows Version 4.0

SEQ ID NO 12

LENGTH: 116
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Matches
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CURRENT FILING DATE: 2002-09-27
NUMBER OF SEQ ID NOS: 109
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 11
LENGTH: 116
TYPE: PRT
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Publication No. US20040072270A1
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Best Local
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APPLICANT: Steward, Lance l
APPLICANT: Aoki, Kei Roger
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IMMEDIATE SOURCE:
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33; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 116 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LIBRARY: GENBANK
CLONE: GI 433075
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEFAX: 650-849-8886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98.3%;
llarity 94.3%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98.3%;
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Pred. No. 7.7e-17;
0; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 170; DB 15;
Pred. No. 7.7e-17;
0; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 116;
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Toxins

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US-10-261-161-12
                                                                                                         บร-09-293-670-55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQ ID NOS: 109
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 113
LENGTH: 116
TYPE: PRT
ORGANISM: Bos taurus
                                                     Query Match
Best Local 9
                                                                                                                                                                                       SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 55
LENGTH: 607
                                                                                                                                                                                                                    APPLICANT: PAYAN, DONALD
APPLICANT: PAYAN, DONALD
APPLICANT: ROSSI, Alexander
TITLE OF INVENTION: Multiparameter Face Assays to Detect Alterations in
TITLE OF INVENTION: Cultular Parameters and to Screen Small Molecule
TITLE OF INVENTION: Libraries
FILE REFERENCE: A68104/DJB/RMS//DAV
CURRENT APPLICATION NUMBER: US/09/293,670
CURRENT FILING DATE: 199-04-16
NUMBER OF SEQ ID NOS: 57
NUMBER OF SEQ ID NOS: 57
                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 55, Applica Publication No. US20 GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Fernandez-Salas, Ester
APPLICANT: Steward, Lance E.
APPLICANT: Aoki, Kei Roger
TITLE OF INVENTION: Cell-Based Fluorescence
TITLE OF INVENTION: Transfer (FRET) Assays
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILE REFERENCE: P-AR 4804
CURRENT APPLICATION NUMBER: US/10/261,161
CURRENT FILING DATE: 2002-09-27
                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Fisher, Joseph
APPLICANT: Lorens, James
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10-261-161-13
                                                                                                                                         ORGANISM: Artificial Sequence FEATURE:
                                                                                                                         OTHER INFORMATION: Description of Artificial Sequence:
                                                                                                                                                                           TYPE: PRT
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       1 LSELDDRADALQAGASXFEXSAAKLKRKYWWKNLK 35
                                       l Similarity
33; Conser
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                                                                                                                                                                                                                                                                                                                                                                                                                                                         Application US/09293670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Application US/10261161
No. US20040072270A1
                                         Conservative
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                                       Score 170; DB 10;
Pred. No. 4.3e-16;
0; Mismatches 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 170; DB 15;
Pred. No. 7.7e-17;
0; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 170; DB 15;
Pred. No. 7.7e-17;
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For Clostridial
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                                                                       Length 607;
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                                         Indels
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US-10-357-028-11
Sequence 11, Application US/10357028
; Publication No. US20030180931A1
; GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 13
US-09-362-360B-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 4, Application US/09962360B Publication No. US20030077685A1 GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Schmidt, James J.
APPLICANT: Stafford, Robert G.
TITLE OF INVENTION: High Throughput Assays for the Proteolytic Activities of Clostridi
TITLE OF INVENTION: Neurotoxins
FILE REFERENCE: 003/224/SAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY: misc_feature LOCATION: 17 and 20 COTHER INFORMATION: Xaa at 17 is N(epsilon)-2,4-(dinitrophenyl)-lysine and Xaa at OTHER INFORMATION: Xaa at 17 is N(epsilon)-2,6-(dinitrophenyl)-cysteine COTHER INFORMATION: dimethylamino-4-methyl-coumarin-3-carboxamidomethyl)-cysteine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE: OTHER INFORMATION: synthetic peptide chosen such that it is cleaved by BONT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: PRT ORGANISM: Artificial sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ENGTH:
                                       SOFTWARE: FRATSCO Version 1.5
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/357,028
FILING DATE: 29-Jan-2003
PRIOR APPLICATION NUMBER: US/09/483,665
FILING DATE: Herewith
                                                                                                                                                                                                                                      COUNTRY: U.S.
ZIP: 94304
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
ADDRESSEE: Incyte Pharmaceuticals, Inc.
STREET: 3174 Porter Drive
CITY: Palo Alto
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Murry, Lynn E.
TITLE OF INVENTION: CELLUBREVIN HOMOLOGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   35
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                                                                                                                                                                                                     OPERATING SYSTEM: DOS
                                                                                                                                                                                                                                                                                                                                   STATE: CA
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                                                                                                                                                                                                                     COMPUTER:
APPLICATION NUMBER: 08 FILING DATE: March 22,
                                                                                                                                                                                                                                                                                                                                                                                                                                           OF SEQUENCES:
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ilarity 100.0%;
Conservative (
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Hawkins, Phillip R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Seilhamer, Jeffrey J
                                                                                                                                                                                                                     IBM Compatible
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Pred. No. 3.1e-17;
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APPLICANT: Steward, Lance E.
APPLICANT: Fernandez-Salas, Ester
APPLICANT: Aoki, Kei Roger
ITILE OF INVENTION: Fret Protease Assays For Botulinum
ITILE OF INVENTION: Serctype A/E Toxins
FILE REFERENCE: P-AR 4803
CURRENT APPLICATION NUMBER: US/09/942,024
CURRENT FILING DATE: 2001-08-28
NUMBER OF SEQ ID NOS: 96
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 19
LENGTH: 114
Type: PT
ORGANISM: Xenopus laevis
US-09-942-024-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; LIBRARY: GENBANK
; CLONE: GI 606978
; SEQUENCE DESCRIPTION: SEQ ID NO: 11:
US-10-357-028-11
Search completed: November 1, 2004, 18:23:47 Job time: 69.0625 secs
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US-09-942-024-19
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FILING DATE: MAYCH 23, 1995
ATTORNEY/AGENT INFORMATION:
NAME: Hamlet-Cox, Diana
REGISTRATION UNMBER: 33,302
REFERENCE/DOCKET NUMBER: 9F-0029-2 DIV
TELECOMMUNICATION INFORMATION:
TELEPHONE: 650-849-8886
INFORMATION FOR SEQ ID NO: 11:
SEQUENCE CHARACTERISTICS:
LENGTH: 82 amino acids
TYPE: amino acids
TYPE: amino acids
TYPE: samino acids
TYPE: peptide
TOPOLOGY: linear
MOLECULE TYPE: peptide
IMMEDIATE SOURCE:
ITHERAY. CENNANY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 19, Application US/09942024 Publication No. US20030143650A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 97.1%; Score 168; DB 14; Length 82; Best Local Similarity 91.4%; Pred. No. 1.1e-16; Matches 32; Conservative 1; Mismatches 2; Indels
                                                                                                                                                                                 Query Match 97.1%; Score 168; DB 10; Length 114; Best Local Similarity 91.4%; Pred. No. 1.5e-16; Matches 32; Conservative 1; Mismatches 2; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 LSELDDRADALQAGASXFEXSAAKLKRKYWWKNLK 35
                                                                                          58 LSELDDRADALQAGASQFETSAAKLKRKYWWKNMK 92
                                                                                                                         1 LSELDDRADALQAGASXFEXSAAKLKRKYWWKNLK 35
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Seguence: Perfect score: Title: Run on: OM protein - protein search, using sw model Database Maximum Minimum Total number of hits satisfying chosen parameters: Searched: Scoring table: Post-processing: DB seq length: 0
DB seq length: 2000000000 US-10-802-574-4 173 1 LSELDDRADALQAG PIR_79:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:* 283416 segs, 96216763 residues BLOSUM62 Gapop 10.0 , Gapext 0.5 November Minimum Match 0% Maximum Match 100% Listing first 45 summaries LSELDDRADALQAGASXFEXSAAKLKRKYWWKNLK 35 GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd. 1, 2004, 17:52:25 ; Search time 18.125 Seconds (without alignments)
185.798 Million cell updates/sec 283416

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	œ	7	σı	ហ	4.	ω	2			Result
56	57	57	60	62	62	9	71	72	76	81	82	107	113	113	116	116	116	116	153	155	165	165	165	165	165	170	170	170	1 (SCOTE
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229	663	ហ	7	221	60	220	1237	117	121	223	115	145	152	132	32	32	32	32	109	125	120	118	118	118	103	116	116	116		Length .
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F86180	H82731	864927	ത	F84741	D44088	T00801	GNFF42	S31250	_	UI	U	T21318	\sim	\sim					T33239	5	A32146	428	831	S52747	507	B34288	JN0011	B38315		Ħ
hypothetical prote	glutaryl-7-ACA acy	probable membrane	hypothetical prote	syna	homeotic protein H	probable synaptobr		synaptobrevin homo	synaptobrevin homo		synaptobrevin homo	~		synaptobrevin isof		iate	SSSC	vesicle-associated	revir	synaptobrevin - lo	iat	ate	synaptobrevin 1 -	Vamp1 protein - hu	cellubrevin - rat	synaptobrevin 2 -				Description

A;Cross-references: UNIPROT:P19065; GB:X76199; NID:g433075; PIDN:CAA53792.1; PID:g433076 A;Experimental source: brain R;Horikawa, H.P.M.; Saisu, H.; Ishizuka, T.; Sekine, Y.; Tsugita, A.; Odani, S.; Abe, T. FEBS Lett. 330, 236-240, 1993 A;Title: A complex of rab3A, SNAP-25, VAMP/synaptobrevin-2 and syntaxins in brain presynaptobrence number: S36811; MUID:93374072; PMID:8365494 A;Accession: S36811

A;Title: A synaptic vesicle membrane protein is conserved from mammals to Drosophila. A;Reference number: A93413; MUID:90180466; PMID:2560644 A;Accession: JN0011

A; Molecule type: mRNA A; Residues: 1-116 <SUE>

ALIGNMENTS

synaptobrev

RESULT 1 B38315

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synaptobrevin 2 - human
(;Species: Homo sapiens (man)
(;Species: 14-Jun-1991 #sequence_revision 14-Jun-1991 #text_change 09-Jul-2004
(;Date: 14-Jun-1991 #sequence_revision 14-Jun-1991 #text_change 09-Jul-2004
(;Accession: B3815
(;Accession: B3815
R;Accession: B3815
A;Accession: B3815; MUID:91009161; PMID:1976629
A;Accession: B38315; MUID:91009161; PMID:1976629
                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 2
JN0011
synaptobrevin 2 - bovine
NyAlternate names: SNAP receptor
C;Species: Bos primigenius taurus (cattle)
C;Species: Bos primigenius taurus (cattle)
C;Date: 31-Mar-1990 #sequence revision 31-Mar-1990 #text_change 09-Jul-2004
C;Date: 31-Mar-1990 #sequence revision 31-Mar-1990 #sequence 09-Jul-2004
C;Date: 31-Mar-19
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A;Map position: 17pter-17p12
C;Superfamily: synaptobrevin
C;Keywords: membrane trafficking; transmembrane protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Cross-references: UNIPROT:P19065; GB:M36205; GB:J05611; NID:g338630; PIDN:AAA60604.1; I
C;Genetics:
A;Gene: GDB:SYB2; VAMP-2
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A;Molecule type: DNA
A;Residues: 1-116 <ARC>
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Best Local S
Matches 33
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A; Molecule t
A; Residues:
A; Experiment
                              A;Cross-references: UNIPROT:Q64357; GB:M24105; GB:J04827; NID:g207626; PIDN:AAA42321.1;
A;Schiavo, G.; Benfenati, F.; Poulain, B.; Rossetto, O.; de Laureto, P.P.; DasGupta, B.R
R;Schiavo, G.; Benfenati, F.; Poulain, B.; Rossetto, O.; de Laureto, P.P.; DasGupta, B.R
Rature 359, 832-835, 1992
A;Title: Tetanus and botulinum-B neurotoxins block neurotransmitter release by proteolyte
A;Reference number: S27125; MUID:93063293; PMID:1331807
A;Accession: S27125
A;Access
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B34288
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J. Biol. Chem. 264, 11061-11064, 1989
J. Title: Two vesicle-associated membrane protein genes are differentially expressed A;Reference number: A34288; MUID:89291844; PMID:2472388
A;Accession: B34288
A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R;Soellner, T.; Whiteheart, S.W.; Brunner, M.; Erdjument-Bromage, H.;
Nature 362, 318-324, 1993
A;Title: SNAP receptors implicated in vesicle targeting and fusion.
A;Reference number: S32360; MUID:93205116; PMID:8455717
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A; Residues: 1-116 < ELF >
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N;Alternate names: vesicle-associated membrane protein 2
C;Species: Rattus norvegicus (Norway rat)
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A; Molecule type: pro
A;Accession: 835077
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:Residues: 31-47,'X',49-55,'X',57-59;67-82 <SOE>
:Experimental source: brain
:Comment: This protein is an intrinsic membrane protein of
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Pred. No. 2.3e-17;
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RESULT 7 A34288

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A;Molecule type: mRNA
A;Residues: 1-103 <MCM'
A;Cross-references: UNIPROT:Q64271; GB:S63830; NID:g388482; PIDN:AAB27554.1;
C;Superfamily: synaptobrevin
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A38315
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A;Residues: 1-118 <GOUs
A;Cross-references: UNIPROT:P23763; EMBL:Z48924; NID:g758107; PIDN:CAA88760.1; PID:g75810
C;Superfamily: synaptobrevin
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A;Description: Isolation and sequence analysis of SNAREs from human skeletal muscle.
A;Reference number: S52747
A;Accession: S52747
                                                                                                                                                                                                                                                                                                              R;Archer III, B.T.; Oezcelik, T.; Jahn, R.; Francke, U.; J. Biol. Chem. 265, 17267-17273, 1990
A;Title: Structures and chromosomal localizations of two A;Reference number: A38315; MUID:91009161; PMID:1976629
A;Accession: A38315
                                                                                                                                                                                                                                                                                                                                                                                                     synaptobrevin 1 - human
C;Species: Homo sapiens (man)
C;Date: 14-Jun-1991 #sequence_revision 14-Jun-1991 #text_change 09-Jul-2004
C;Accession: A38315
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                                                                                                                                                                                                                                              A;Cross-references: UNIPROT:P23763; GB:M36200;
                                                                                                                                                                                                                                                             A; Molecule type: DNA
A; Residues: 1-118 < ARC>
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                                                                                                                                  ;Superfamily: synaptobrevin;Keywords: membrane protein
                                                                                                                                                                                                                             ;Genetics:
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Best Local (
                                                                   Matches
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Best Local :
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32; Conserv
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                                                                   Similarity
32; Conserv
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LSELDDRADALQAGASQFESSAAKLKRKYWWKNCK
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91.4%;
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                                                                                       Score 165;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 165; DB 2;
Pred. No. 1.2e-16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 165; DB 2;
Pred. No. 1.1e-16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21-Jul-1995 #text_change
                                                                                       1.2e-16;
                                                                                                                                                                                                                                                GB:J05611;
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5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             81
   96
                                                                                                      Length 118;
                                                                                                                                                                                                                                                                                                                                                                                        U.; Suedhof,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 103
                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                       human genes encoding synaptobrev
                                                                                                                                                                                                                                                NID: g338623; PIDN: AAA60603.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       09-Jul-2004
                                                                      0
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                                                                                                                                                                                                                                                                                                                                                                                            H.C
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                                                                      Gaps
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vesicle-associated membrane protein 1 - rat
C;Species: Rattus norvegicus (Norway rat)
C;Date: 01-Jun-1990 #sequence_revision 01-Jun-1990 #text_change 09-Ju1-2004
C;Accession: A34288
C;Accession: A34288
R;Blferink, L.A.; Trimble, W.S.; Scheller, R.H.
J. Biol. Chem. 264, 11061-11064, 1989
A;Title: Two vesicle-associated membrane protein genes are differentially expressed in target and the control of the contro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 9
S40153
                                                                                                            A;Cross-reserve.
C;Superfamily: synaptobrevin
                                                                                                                                                                                                                                                                                                                                                                                                                           synaptobrevin - longfin squid
C;Species: Loligo pealeii (longfin squid)
C;Datec: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 09-Jul-2004
C;Accession: S40153
R;Bommert, K.; Kistner, A.; Hasermann, E.; Betz, H.
submitted to the EMBL Data Library, August 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Cross-references: UNIPROT:P13701; EMBL;J03777; NID:g213245; PIDN:AAA49286.1; PID:g2132 C;Superfamily: synaptobrevin C;Keywords: membrane protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 8
A32146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        뮍
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Proc. Natl. Acad. Sci. U.S.A. 85, 4538-4542, 1988
A;Title: VAMP-1: a synaptic vestcle-associated integral
A;Reference number: A32146; MUID:88248054; PMID:3380805
A;Accession: A32146
                                                                                                                                                                                                                 A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-125 <BOM>
                                                                                                                                                                                                                                                                                                                          A,Description: Conservation of primary structure and clostridial neurotoxin cleavage sit
A,Reference number: S40153
A,Accession: S40153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    vesicle-associated membrane protein 1 - Pacific electric ray
C;Species: Torpedo californica (Pacific electric ray)
C;Date: 21-May-1990 #sequence_revision 21-May-1990 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Molecule type: mRNA
A; Residues: 1-120 <TRI>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C; Accession: A32146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Дb
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Best Local S
Matches 32
       Matches
                                                                                                                                                                          Cross-references: UNIPROT:P47194; EMBL:X74748; NID:g437855; PIDN:CAA52766.1; PID:g4378
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                                              Local
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   29;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 LSELDDRADALQAGASXFEXSAAKLKRKYWWKNLK 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    32;
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                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               95.4%;
91.4%;
                                          82.9%;
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91,4%;
       2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 165; DB z; Pred. No. 1.3e-16;
Score 155; DB 2; Length 125; Pred. No. 3.7e-15; Mismatches 4; Indels
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Pred. No. 1.2e-16;
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   Gaps
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   0;
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1 LSELDDRADALQAGASXFEXSAAKLKRKYWWKNLK 35

A;Title: Neurotransmission and secretion.
A;Reference number: S35552; MUID:93354436; PMID:8350916
A;Accession: S35553

A; Molecule type:

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vesicle-associated membrane protein 1 - chicken (fragment)
(;Species: Gallus gallus (chicken)
(;Date: 20-May-1994 #sequence_revision 13-Mar-1997 #text_change 09-Jul-2004
(;Accession: S3553
R;Patarnello, T.; Bargelloni, L.; Rossetto, O.; Schiavo, G.; Montecucco, C.
Nature 364, 581-582, 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          vesicle-associated membrane protein 2 - chicken (fragment)
C;Species: Gallus gallus (chicken)
C;Date: 10-Dec-1993 #sequence_revision 26-Jul-1996 #text_change 09-Jul-2004
C;Accession: S3555
                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                          A;Cross-references: UNIPROT:Q7LZ64
C;Superfamily: synaptobrevin
C;Keywords: membrane trafficking; transmembrane protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R;Patarnello, T.; Bargelloni, L.; Rossetto, O.; Schiavo Nature 364, 581-562, 193
A;Title: Neurotransmission and secretion.
A;Reference number: S35552; MUID:93354436; PMID:8350916
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S35555
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A;Map position: 5
A;Introns: 39/3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             R;Greco, T.; Bradshaw, H.; O'Brien, D. submitted to the EMBL Data Library, May 1998
A;Description: The sequence of C. elegans cosmid T10H9.
A;Reference number: Z21306
A;Accession: T33239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              synaptobrevin SNB-1 - Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Date: 29-Oct-1999 #sequence_revision 29-Oct-1999 #text_change 09-Jul-2004
C;Accession: T33239
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Molecule type: DNA
A; Residues: 1-32 < PAT>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Accession: S35555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Experimental source: strain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Cross-references: UNIPROT: 002495;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local 9
                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                               Query Match
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                                                                                                                                                                                                                                                                                                                                                           Local
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                                                                                                                                                                                                                                            σ
                                                                                                                                                                                                                                                                                     1 LSELDDRADALQAGASXFEXSAAKLKR 27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 LSELDDRADALQAGASXFEXSAAKLKRKYWWKNLK 35
                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      similarity 82.9%;
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                                                                                                                                                                                                                                                                                                                                    Conservative
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                                                                                                                                                                                                                                                                                                                                                         67.1%;
                                                                                                                                                                                                                                                                                                                                    0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                               Score 116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2; Mismatches
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                                                                                                                                                                                                                                                                                                                                                         Pred.
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                                                                                                                                                                                                                                                                                                                                                           No.
                                                                                                                                                                                                                                                                                                                                                                               DB 2; Length 32;
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R. G
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A; Molecule type:
A; Residues: 1-32
A; Cross-referenc
C; Superfamily: :
synaptobrevin isoform B - fruit fly (Drosophila melanogaster)
N,Alternate names: vesicle-associated membrane protein B
C,Species: Drosophila melanogaster
C,Date: 10-Mar-1994 #sequence_revision 10-Mar-1994 #text_change 09-Jul-2004
C,Accession: JC1522
R,Chin, A.C.; Burgess, R.W.; Wong, B.R.; Schwarz, T.L.; Scheller, R.H.
                                                                                                                           RESULT 15
JC1522
                                                                                                                                                                                                                                                                                                                                                                                                                                                         C;Species: Mus musculus (house mouse)
C;Date: 10-Dec-1993 #sequence_revision 27-Feb-1997 #text
C;Accession: S3552
R;Patarnello, T.; Bargelloni, L.; Rossetto, O.; Schiavo
Nature 364, 581-582, 1993
A;Title: Neurotransmission and secretion.
A;Reference number: S35552; MUID:93354436; PMID:8350916
A;Reference number: S35552
A;Reference number: S35552
A;Status: preliminary
A;Status: preliminary
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A;Cross-references: UNIPROT:Q7LZ65
C;Superfamily: svmanrohear?
                                                                                                                                                                                                               Дb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          R:Patarnello, T.; Bargelloni, L.; Rossetto, O.; Schiavo Nature 364, 581-582, 1993
A;Title: Neurotransmission and secretion.
A;Reference number: S35552; MUID:93354436; PMID:8350916
A;Accession: S35554
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A; Residues: 1-32 < PAT >
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   vesicle-associated membrane protein 2 - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 10-Dec-1993 #sequence_revision 27-Feb-1997 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    vesicle-associated membrane protein 1 - mouse (fragment)
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                                                                                                                                                                                                                                                                                              Query Match
Best Local S
Matches 25
                                                                                                                                                                                                                                                                                                                                                                                                  Molecule type: DNA;Residues: 1-32 <PAT>;Cross-references: UNI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Species: Mus musculus (house mouse)
Date: 10-Dec-1993 #sequence_revision 27-Feb-1997 #text_change 09-Jul-2004;
Accession: S35552
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Status: preliminary
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A;Introns: 16/2; 128/1
C;Superfamily: synaptobrevin
C;Keywords: membrane protein; synaptic vesicle
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A;Title: Differential expression of transcripts from syb, a Drosophila melanogaster gene A;Reference number: JC1521; MUID:94010306; PMID:8406010
A;Accession: JC1522
Search completed: November Job time : 19.125 secs
                                                                                                                                                                                                                                                                                                                A;Cross-references: FlyBase:FBgn0003660
                                                                                                                                                                                                                                                                                                                                    A;Gene: syb
                                                                                                                                                                                                                                                                                                                                                          C; Genetics:
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A; Residues: 1-132 <CHI>
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22; Conserv
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Perfect score:
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and is derived by a
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DB seq length: 2000000000
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173
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1: uniprot_sprot:*
2: uniprot_trembl:*
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207:209 Million cell updates/sec
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Q6p835 xenopus tro
Aah61396 xenopus t
P19065 homo sapien
Q64357 mus musculu
Q9buc2 homo sapien
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RA Gourand S., Laera A., Rosenthal W., Syelto M., Valenti G.;
RA Rossetto O., Mannucci R., Rosenthal W., Syelto M., Valenti G.;
RA Pinctional involvement of VAMP/synaptobrevin-2 in cAMP-stimulated
RT aquaporin 2 translocation in renal collecting duct cells.";
J. Cell Sci. 115:3667-3674(2002).

RMEL; AF26293; AAN14408.1; -.
DR HRI; AF26293; AAN14408.1; -.
DR PRANTS; PRO01398; Synaptobrevin.
DR PFAm; PF00957; Synaptobrevin; 1.
RPRANTS; PR00219; SYNAPTOBREVIN; 1.
RPROSITE; PR00417; SYNAPTOBREVIN; 1.
RPROSITE; PS00417; SYNAPTOBREVIN; 1.
RPROSITE; PS00417; SYNAPTOBREVIN; 1.
RPROSITE; PS00417; SYNAPTOBREVIN; 1.
RPROSITE; PS00417; SYNAPTOBREVIN; 1.
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Best Local S
Matches 33
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Q8HZX7;
Q1 AMAR-2003 (TrEMBLrel. 23, Created)
Q1-MAR-2003 (TrEMBLrel. 23, Last sequence update)
Q1-OCT-2003 (TrEMBLrel. 25, Last annotation update)
Synaptobrevin-2 (Fragment).
Oryctolagus cuniculus (Rabbit).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
MCBL TaxID=9986;
[1] TaxID=9986;
                            OGP835

OGP835;

OGP835;

OGP835;

OS-JUL-2004 (TrEMBLrel. 27, Created)

OS-JUL-2004 (TrEMBLrel. 27, Last sequence update)

OS-JUL-2004 (TrEMBLrel. 27, Last annotation update)

Hypothetical protein MGC75977.

Hypothetical protein MGC75977.

Mame=MGC75977;

Xenopus tropicalis (Western clawed frog) (Silurana tropicalis).

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea;

Procession of the process of
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057345
Q6TQX3
AAH71402
06FBJ3
AAH59687
Q9BRV4
Q7SZZ5
AAH59626
057432
Q6DLTO
Q8GEB07
Q8FB07
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O619k3 brachydanio
Aah71402 brachydanio
Aah59687 brachydanio
Aah59687 brachydanio
Aah59687 brachydanio
O7szz5 brachydanio
Aah59626 brachydanio
O57432 fugu rubrip
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O8t897 halocynthia
O86fe0 schistosoma
O6dgii brachydanio
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RX MEDIINE-22388257; PubMed=12477932;

RX MEDIINE-22388257; Peingold E.A., Grouse L.H., Derge J.G.,

RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,

RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,

RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,

RA Stapleton M., Soares M.B., Foshiyuki S., Carninci P., Frange C.,

RA Bosak S.A., McDwan P.U., McKernan K.J., Malek J.A., Gunaratne P.H.,

RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

Ra Bosak S.A., McDwan P.U., McKernan K.J., Malek J.A., Gibbs R.A.,

Rohards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

RA Raha S.S., Loquellano N., Worley R.C., Shevchenko Y., Bouffard G.G.,

RA Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,

RA Fahey J., Halton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,

RA Mhiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,

RA Krzywinski M.I., Skalska U., Smailus D.E., Schmerch A., Schein J.E.,

Jones S.J., Marra M.A.,

"Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences.",

Jones S.J., Marra M.A.,

Barton M. Sodergren E.J. U.S.A. 99:16899-16903 (2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Ma
Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUE=Embryo;
Klein S., Strausberg R.;
Klein S., Strausberg R.;
Submitted (NOV-2003) to the EMBL/GenB.
Submitted (NOV-2003) to the EMBL/GenB.
EMBL; BC061396; AAH61396.1; -
InterPro; IPR001388; Synaptobrevin; 1.
Pfam, PF00957; Synaptobrevin; 1.
PRINTS; PR00219; SYNAPTOBREVN.
PROSITE; PS00417; SYNAPTOBREVN; 1.
PROSITE; PS00417; SYNAPE; 1.
                                                                                                                                                                                                                                                                                                                                  25-MAR-2004 (TrEMBLrel. 27, Created)
25-MAR-2004 (TrEMBLrel. 27, Last sequence update)
25-MAR-2004 (TrEMBLrel. 27, Last annotation update)
Hypothetical protein MGC75977.
                   MEDLINE=22388257; PubMed=12477932; Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G., Strausberg R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G. Klausner R.D., Collins F.S., Wagner L., Schaefer C.F., Bhat N.K. Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K. Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F., Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L., Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz
                                                                                                                                                                      SEQUENCE FROM
TISSUE=Embryo,
                                                                                                                                                                                                                               NCBI_TaxID=8364;
                                                                                                                                                                                                                                                                           Xenopus tropicalis (Western clawed frog) (
Eukaryota; Metazoa; Chordata; Craniata; Ve
Amphibia; Batrachia; Anura; Mesobatrachia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hypothetical SEQUENCE 1:
                                                                                                                                                                                                                                                     Xenopodinae;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                            N.A.
                                                                                                                                                                                                                                                       Xenopus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    12440 MW;
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                                                                                                                                                                                                                                                       Silurana.
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Pred. No. 8.
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Vertebrata; Euteleostomi;
ia; Pipoidea; Pipidae;
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d.8e-17;
2;
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Best Local
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                                                                                                                                            SPECIES-Human; TISSUE-BLOOM,
Taruscio D., Zoraqi K.G., Falbo V.;
"Genomic structure of human SYB2 gene.";
Submitted (MAR-1999) to the EMBL/GenBank/DDBJ databases.
SPECIES=Bovine;
MEDLINE=90180466; PubMed=2560644;
Suedhof T.C., Baumert M., Perin M
"A synaptic vesicle membrane prot.
Drosophila.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-NOV-1990 (Rel. 16, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
01-OCT-2004 (Rel. 45, Last annotation update)
Vesicle-associated membrane protein 2 (VAMP-2)
Name=VAMP2; Synonyms=SYB2;
Homo sapiens (Human), and
                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
SERCIES=Human; TISSUE=Blood;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=91009161; PubMed=1976629; Archer B.T. III, Oezcelik T., Jahn R., Fra "Structures and chromosomal localizations synaptobrevins 1 and 2.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VAM2_HUMAN
P19065;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Jones S.J., Marra M.A.;
Jones S.J., Marra M.A.;
Jones S.J., Marra M.A.;
"Generation and initial analysis of more than 15,000
and mouse cDNA sequences.";
nron Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
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                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                  Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   synaptobrevins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SPECIES=Human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bos taurus (Bovine).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=9606,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Klein S., Strausberg R.;
Submitted (NOV-2003) to the
EMBL; BC061396; AAH61396.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IISSUE=Embryo;
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                                                                                                                                                                                                                                                                                                                                  (MAR-1998)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Metazoa; Chordata;
Eutheria; Primates;
=9606, 9913;
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                                                                                                                                                                                                                                                                                                                               TISSUE=Peripheral blood;
Lazo P.A., Mollinedo F.;
VAMP genes in human neutrophils.";
-1998) to the EMBL/GenBank/DDBJ dat.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 and 2.";
265:17267-17273(1990)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     12440 MW;
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Pred.
                             protein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRT;
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No. 8.
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                             ahn R.;
conserved
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 114;
                               from
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                               mammals
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MIM; 185881; ...

GO; GO:0005887; C:integral to plasma membrane; TAS.
InterPro; IPR00138; Synaptobrevin.
Pfam; PF00957; Synaptobrevin; 1.
PRINTS; PR00219; SYNAPTOBREVN.
PROSITE; PS00417; SYNAPTOBREVIN; 1.
PROSITE; PS00417; SYNAPTOBREVIN; 1.
PROSITE; PS00417; SYNAPTOBREVIN; 1.
                                                                                                                                                                                                               EMBL; M36205; AAA60604.1; JOINED.
EMBL; M36201; AAA60604.1; JOINED.
EMBL; M36202; AAA60604.1; JOINED.
EMBL; M36203; AAA60004.1; JOINED.
EMBL; M36204; AAA60604.1; JOINED.
                                                                                                                                                                                                                                                                                                   This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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Soellner T., Whiteheart S.W., Brunner M., Erdjument-Bromage H
Geromanos S., Tempst P., Rothman J.E.;
"SNAP receptors implicated in vesicle targeting and fusion.";
Nature 362:318-324(1993).
                                                                                                       MIM;
                                                                                                                                                                          EMBL; AF13537
EMBL; X76199;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     vesicles to their target membrane.
-!- SUBUNIT: Interacts with VAPA and VAPB.
-!- SUBCELLULAR LOCATION: Type IV membrane protein. Neuronal synaptic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "Cocrystal structure of synaptobrevin-II bound to botulinum neurotoxin type B at 2.0 A resolution.";
Nat. Struct Biol. 7:687-692 (2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=95137000; PubMed=7835332;
Kutay U., Ahnert-Hilger G., Hartmann E., Wiedenmann B.,
"Transport route for synaptobrevin via a novel pathway of into the endoplasmic reticulum membrane.";
EMBO J. 14:217-223(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Insulin-responsive tissues contain the core complex protein SNAP-25 (synaptosomal-associated protein 25) A and B isoforms in addition to syntaxin 4 and synaptobrevins 1 and 2.";
Biochem. J. 317:945-954(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE=96332494; PubMed=8760387;
Jagadish M.N., Fernandez C.S., Hewish D.R., Macaulay S.L., Gough K.H.,
Grusovin J., Verkuylen A., Cosgrove L., Alafaci A., Frenkel M.J.,
                                                                                                                                                                                                      EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                             -!- SIMILARITY: Belongs to the synaptobrevin family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SPECIES=Human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -i- FUNCTION: Involved in the targeting and/or fusion of transport
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=20392548;    PubMed=10932255;    DOI=10.1038/77997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE OF 31-59 AND 67-82, AND ACETYLATION.
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[5]
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                                                                                                                              JN0011; JN0011.
1F83; X-ray; B=52-75, C=76-87.
                                                                                                                                                          B38315; B38315.
                                                                                                         185881;
                                                                                                                                                                       AJ225044; CAA12385.1; -. AF135372; AAF15551.1; -. X76199; CAA53792.1; -.
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                                                                                                                    HGNC:12643; VAMP2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           , Rapoport T.A.;
of insertion
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                    Sutton R.B., Fasshauer D., Jah "Crystal structure of a SNARE at 2.4 A resolution.";
                                                                                                                                                                                                                                                                                                                             MEDINE-98104125; PubMed=9430681; Martin L.B., Shewan A., Millar C.A., "Vesicle-associated membrane protein insulin-dependent trafficking of the GLUT4 in 3T3-L1 adipocytes.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MOD_RES
                                                                        MEDLINE=218226i; PubMed=1183227;
Chen X., Tomchick D.R., Kovrigin E
Suedhof T.C., Rizo J.;
"Three-dimensional structure of th
                                                                                                                                                                                                                                                            SPECIES=Rat;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Name=Vamp2; Synonyms=Syb2; Mus musculus (Mouse), and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q64357;
01-NOV-1997 (Rel. 35,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VAM2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Multigene family; Synapse; INIT MET 0 0 0 DOMAIN 1 93
                                X-RAY CRYSTALLOGRAPHY (1.45 ANGSTROMS) OF
                                                 Neuron 33:397-409(2002).
[5]
                                                                                                                                                                                                                                                                                         X-RAY CRYSTALLOGRAPHY (2.4 ANGSTROMS)
                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=10090,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Rattus norvegicus (Rat)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DOMAIN
                                                                                                                                                             X-RAY CRYSTALLOGRAPHY
                                                                                                                                                                                        Nature 395:347-353(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3D-structure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local
                                                                                                                                                                                                                                                                                                                    Biol. Chem. 273:1444-1452(1998).
                    SNAP25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOUSE
                                                                                                                                              AND SNAP25,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           59
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       115 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STANDARD;
                                                                                                                                              APHY (2.3 ANGSTROMS)
AND NMR ANALYSIS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10116;
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94.3%;
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Pred. No. 8.9e-17;
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MEDLINE-89291844; PubMed=2472388; Elferink L.A., Trimble W.S., Scheller R.H.; "Two vesicle-associated membrane protein genes are differentially expressed in the rat central nervous system."; J. Biol. Chem. 264:11061-11064(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-NOV-1997 (Rel. 35, Last sequence update)
01-OCT-2004 (Rel. 45, Last annotation update)
Vesicle-associated membrane protein 2 (VAMP-2) (Synaptobrevin
                                                                                                                                                                                                                                                                                                                                                        MEDLINE=98430524; PubMed=9759724; DOI=10.1038/26412; Sutton R.B., Fasshauer D., Jahn R., Brunger A.T.; "Crystal structure of a SNARE complex involved in sy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Coiled coil; Direct protein sequencing; Synaptosome; Transmembrane.
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v-SNARE coiled-coil homology
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             388B79F0D21AD81E CRC64;
                                                                               complexin/SNARE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gould G.W., James D.E.; 2 plays a specific role in the facilitative glucose transport.
                                                                                                                                    Arac D., Machius M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OF 1-96 IN COMPLEX
28-89 IN COMPLEX WITH STX1A
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                                                                                                                                                                                                                                                   COMPLEX WITH STX1A;
                                                                                                                                                                                                                                                                                                                                                           synaptic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    glucose transporter
                                                                            complex.";
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Best Local
                                                                                                                                                                         Q9BUC2;
Q9BUC2;
01-JUN-2001
                                                                                                  01-JUN-2001 (TrEMBLrel. 17,
01-JUN-2001 (TrEMBLrel. 17,
01-OCT-2004 (TrEMBLrel. 28,
Vesicle-associated membrane
                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                       Homo sapiens (Human)
                                                                               Name=VAMP2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pfam; PF00957; Synaptobrevin; 1.
PRINTS; PR00219; SYNAPTOBREVIN; 1.
PRODOM; PD0001229; Synaptobrevin; 1.
PROSITE; PS00417; SYNAPTOBREVIN; 1.
PROSITE; PS50892; V_SNARE; 1.
3D_structure; Acetylation; Coiled coil; Multigene family;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PIR; B34288; B34288.

PDB; HIXI; X-ray; A=26-91.

PDB; 1NTS; X-ray; A=26-88.

PDB; 1SFC; X-ray; A/E/I=1-95.

MGD; MGI:1313277; Vamp2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on it use by non-profit institutions as long as its content is in no we
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -!- TISSUE SPECIFICITY: Nervous system specific. A higher level expression is seen in the brain as compared to the spinal cord.
-!- SIMILARITY: Belongs to the synaptobrevin family.
-!- SIMILARITY: Contains 1 v-SNARE coiled-coil homology domain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     vesicles to their target membrane.
-!- SUBUNIT: Interacts with VAPA and VAPB (By similarity). Part of the SUARE core complex containing SNAP25, VAMP2 and STX1A. This complex binds to CPLX1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             XITIE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VARIANT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              morphism; Synapse;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FUNCTION: Involved in the targeting and/or fusion of transport
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rPro; IPR001388; Synaptobrevin.
                                                                                                                                                                                                                                                                                                                                                      59
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                                                                                                                                                                                                                                                                                                                                              neuronal SNARE complex.";
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115 AA;
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111
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                                                                                                                                                                                                                                 PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               115
90
110
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94.3%;
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                                                                                                    protein 2 (Synaptobrevin 2).
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Last annotation update)
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Cytoplasmic (Po
Anchor for type
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Pred. No. 8.9e-17;
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v-SNARE coiled-coil homology.
I -> II.
V -> I.
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RESULT 7
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Best Local &
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Pfam; P700957; Synaptobrevin; 1.
PRINTS; PR00219; SYNAPTOBREVI.
ProDom; PD001229; Synaptobrevin; 1.
PR051TB; PS00417; SYNAPTOBREVIN; 1.
PR051TB; PS50042; VSNARE; 1.
PR051TB; PS50892; VSNARE; 1.
SEQUENCE 116 AA; 12663 MW; 9CD679
                                                                                                Q9N0Y0;
Q9N0Y0;
01-OCT-2000
01-OCT-2000
01-JUN-2003
VAMP-2;
                                 Macaca mulatta (Rhesus macaque).
Eukaryota; Metazoa; Chordata; Cr
       Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Strausberg R., Submitted (JUL-2002) to the EMBL/GenBank/DDBJ databases. EMBL; BC002737; AAH02737.3; -. EMBL; BC002737; AAH19608.1; -. EMBL; BC019608; AAH19608.1; -.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Strausberg
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NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FISSUE=Test
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Proc. Natl. Acad.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q9WUW2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           33;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 LSELDDRADALQAGASXFEXSAAKLKRKYWWKNLK 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                         LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK
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                                                                                                                                     (TrEMBLrel. (TrEMBLrel.
                                                                                                                                                                                                                                                                           PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LSFC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       to the EMBL/GenBank/DDBJ databases
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15,
24,
                                                                                                                                     Last sequence update)
Last annotation updat
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                                                                                                                                                                                                            Created)
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Pred. No. 9e-17;
D; Mismatches
   Craniata; Vertebrata; Euteleostomi; Catarrhini; Cercopithecidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9CD679C4F6F1B5A8 CRC64;
                                                                                                                                                                                                                                                                                  116
                                                                                                                                                                                                                                                                              AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 2;
Cercopithecidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         94
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 116;
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Macaca.

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SOURCE OF SECURITY OF SECURITY
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Best Local S
Matches 33
                                                                                                                                      Query Match
Best Local S
Matches 33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HSSP, QSWUW2; iscc.

MGD; MGI:1312277; Vamp2.

GO; GO:0030141; C:secretory granule; IDA.

GO; GO:0030141; C:secretory granule membrane; IDA.

GO; GO:0042589; C:zymagptic vesicle membrane; IDA.

GO; GO:0042589; C:zymagen granule membrane; IDA.

GO; GO:0005516; F:calmodulin binding; IDA.

GO; GO:0005543; F:phospholipid binding; IDA.

GO; GO:000149; F:SNARE binding; IDA.

GO; GO:0017156; P:calcium ion-dependent exocytosis; IDA.

GO; GO:0017157; P:regulation of exocytosis; IDA.

GO; GO:0017157; P:regulation of exocytosis; IDA.

GO; GO:0017157; P:regulation of exocytosis; IDA.

R GO; GO:0016083; P:synaptic vesicle fusion; IMP.

InterPro; IPR001388; Synaptobrevin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TISSUE=Hippocampus;
Jensen M.J., Smith L.A.;
Submitted (MAR-2000) to the El
EMBL; AF240769; AAF64476.1;
HSSP; Q9WUM2; ISFC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        035619;
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PRINTS; PR00219; SYNAPTOBREVN.
ProDom; PD001229; Synaptobrevin;
PROSITE; PS00417; SYNAPTOBREVIN;
PROSITE; PS50892; V_SNARE; 1.
SEQUENCE 116 AA; 12663 MW; 90
                                                                                                                                                                                                                                                                         Pfam; PF00957; Synaptobrevin; 1.
PRINTS; PR00219; SYNAPTORREVN.
PRODOM; PD001229; Synaptobrevin; 1.
PROSITE; PS00417; SYNAPTOBREVIN; 1.
PROSITE; PS50892; V SNARE; 1.
SEQUENCE 116 AA; 12677 MW; 4E1D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Olken S.K., Doerre S., Corle
Submitted (JUN-1997) to the
EMBL; AF007168; AAB62931.1;
PIR; S35554; S35554.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Name=Vamp2; Synonyms=mVAMP-2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-JAN-1998 (TrEMBLrel. 05,
01-JAN-1998 (TrEMBLrel. 05,
01-MAR-2004 (TrEMBLrel. 26,
Vesicle associated membrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE
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NCBI_TaxID=9544;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             InterPro; IPR001388; Synaptobrevin
9
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33; Conserv
                                                                   Н
                                                                                                                                                                        Similarity
                                     LSELDDRADALQAGASXFEXSAAKLKRKYWWKNLK
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FROM N.A
LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; Metazoa; Chordata;
Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
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                                                                                                                                          Conservative
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94.3%;
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Last annotation update)
protein 2.
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                                                                                                                                   0;
                                                                                                                                      Score 170; DB
Pred. No. 9e-17
0; Mismatches
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); Mismatches
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
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                                                                                                                                                                    170; DB 2
No. 9e-17;
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Best Local :
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14-APR-2004
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EMBL; BC00
MEDLINE=22388257; PubMed=12477932;
Strausberg R.L., Feingold E.A., Grouse L.H.,
Klausner R.D., Collins F.S., Wagner L., Shem
Altschul S.F., Zeeberg B., Buetow K.H., Schau
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Jones S.J., Marra M.A.;
Jones S.J., Marra M.A.;
"Generation and initial analysis of more than 15,000
"Generation and initial analysis of more than 15,000
"Generation and initial analysis of more than 15,000
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Eukaryota; Metazoa; (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14-APR-2004 (TrEMBLrel. 27,
14-APR-2004 (TrEMBLrel. 27,
14-APR-2004 (TrEMBLrel. 27,
Vesicle-associated membrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAH02737;
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                                                                                                                                                                                                                                                      Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Strausberg
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                     Vesicle-associated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAH55105
                                                                                                                                SEQUENCE FROM
TISSUE=Brain;
                                                                                                                                                                                                                                                                                                                       Mus musculus
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                                                                                                                                                                                                                  NCBI_TaxID=10090;
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c. Natl. Acad. Sci. U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            tted (FEB-2001) to the EMBL/GenBank/DDBJ databases
BC002737; AAH02737.3; -.
NCE 116 AA; 12663 MW; 9CD679C4F6F1B5A8 CRC64;
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                                                                                                                                                                FROM
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4 (TrEMBLrel. 27, 1
5 ociated membrane p
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Primates;
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Rođentia;
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94.3%;
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Pred. No. 9e-17;
D; Mismatches
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                                                                                                                                                                                                                                                      Craniata; Vertebrata; I
Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99:16899-16903 (2002).
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Schaefer
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men C.M., Schuler
efer C.F., Bhat N.
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RESULT 11
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Best Local
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                                                                                                                                                             STRAIN=C57BL/6J; TISSUE=Brain;
MEDLIKE=99279253; PubMed=10349636;
Carninci P., Hayashizaki Y.;
"High-effictency full-tength cDNA cloning.";
Meth. Enzymol. 303:19-44(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUB=Brain;
MEDLINE=22354683; PubMed=12466851;
The FANTOM Consortium,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14-APR-2004 (TrEMBLrel. 27, Created)
14-APR-2004 (TrEMBLrel. 27, Last sequence update)
14-APR-2004 (TrEMBLrel. 27, Last annotation update)
14-APR-2004 (TrEMBLrel. 27, Last annotation update)
15-days embryo brain cDNA, RIKEN full-length enriched library,
clone:G630012G02 product:unclassifiable, full insert sequence.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   the RIKEN Genome Exploration Research Group Phase I & II "Analysis of the mouse transcriptome based on functional 60,770 full-length cDNAs."; Nature 420:563-573(2002).
                                                SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Brain;
                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Nature 409:685-690(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=21085660; PubMed=11217851; RIKEN FANTOM Consortium;
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STRAIN=C57BL/6J; TISSUE=Brain;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Functional annotation
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NCE 116 AA; 1269:
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lia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          of a full-length mouse cDNA collection
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Pred. No. 9e-17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99:16899-16903 (2002).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4A0D0D56B5409D0A CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   of more than 15,000 full-length human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      116
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Team; annotation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
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RESULT 12
Q9WUW2
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Best Local S
Matches 33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RP SEQUENCE FROM N.A.

RP STRAIN-C578L/61; TISSUE-Brain;

A Adachi J., Aizawa K., Akimura T., Arakawa T., Bono H., Carninci P.,

A Adachi J., Aizawa K., Akimura T., Hara A., Hashizume W.,

Pukuda S., Furuno M., Hanagaki T., Haraka T., Hirozane T.,

A Hayashida K., Hayatsu N., Hiranoto K., Hiraoka T., Hirozane T.,

A Hori F., Imotani K., Ishi Y., Itoh M., Kagawa I., Kasukawa T.,

A Katoh H., Kawai J., Kojima Y., Kondo S., Konno H., Kouda M., Koya S.,

Kurihara C., Matsuyama T., Miyazaki A., Muratu M., Nakamura M.,

A Nishi K., Nomura K., Numazaki R., Ohno M., Ohsato N., Okazaki Y.,

AN ANishi K., Nomura K., Numazaki R., Ohno M., Ohsato N., Okazaki Y.,

AN Alishi K., Nomura K., Numazaki R., Shinoto N., Sakazume N., Sano H.,

Saito R., Saitoh H., Sakai C., Sakai K., Sakazume N., Sano H.,

Sasaki D., Shibata K., Shinagawa A., Tshaka T.,

A Tagawa A., Takahashi F., Takaku-Akahira S., Takeda Y., Tanaka T.,

AN Tomaru A., Toya T., Yasunishi A., Muramatsu M., Hayashizaki Y.;

BMEL, AKO90178; BAC41125.1; --

BREL, AKO90178; BAC41125.1; --

SEQUENCE 116 AA; 12691 NW; 4A0D0D56B5409D0A CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           konno H., Okazaki Y., Muramatsu M., Sugahara Y., Shibe "Normalization and subtraction of cap-trapper-selected prepare full-length cDNA libraries for rapid discovery Genome Res. 10:1617-1630(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŚEQUENCE FROM N.A.
ŚTRAIN-C57BL/6J; TISSUE-Brain;
MEDLIKE-20530913; PubMed=11076881;
MEDLIKE-20530913; PubMed=11076881;
Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Carninci P.,
Konno H., Akiyama J., Nishi K., Kitsunai T., Tashiro H., Itoh M.,
Sumi N., Ishii Y., Nakamura S., Hazama M., Nishine T., Harada A.,
Sumi N., Ishii Y., Nakamura S., Ikagami T., Kashiwagi K.,
Yamamoto R., Matsumoto H., Sakaguchi S., Ikagami T., Kashiwagi K.,
Pujiwake S., Inoue K., Togawa Y., Izawa M., Ohara E., Watahiki M.,
Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J.,
Yoneda Y., Shikawa T., Ozawa K., Tanaka T., Hayashizaki Y.;
"RIKEN integrated sequence analysis (RISA) system-384-format
sequencing pipeline with 384 multicapillary sequencer.";
Genome Res. 10:1757-1771(2000).
                                                                                                                                                                                                                                                                                                                                      Q9WUW2;
01-NOV-1999 (TrEMBLrel.
01-NOV-1999 (TrEMBLrel.
01-JUN-2003 (TrEMBLrel.
                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                Q9WUW2
                                                 FEBS Lett. 451:209-213(1999).
EMBL; AJ133104; CAB43509.1; -.
InterPro; IPR001388; Synaptobrevin
                                                                                                     "Characterization of an alternatively associated membrane protein-2 (VAMP-2)
                                                                                                                                                            STRAIN=Sprague-Dawley;
MEDLINE=99297576; Pubm
                                                                                                                                                                                                                                                                                        Rattus norvegicus (Rat).
                                                                                                                                                                                                                                                                                                                         Vesicle associated
                                                                                                                                                                                                                                 NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                         Name=vamp2
 proDom; PD001229; Synaptobrevin;
                   Pfam; PF00957; Synaptobrevin;
PRINTS; PR00219; SYNAPTOBREVN
                                                                                                                                             Mandic R.,
                                                                                                                                                                                              SEQUENCE FROM N.A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK
                                                                                                                                         297576; PubMed=10371166;
Lowe A.W.;
                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                                                                                                                                                                            membrane
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                                                                                                                                                                                                                                                                                                                                                                                Created)
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Pred. No. 9e-17;
Nismatches
                                                                                                                                                                                                                                                    Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                    135
                                                                                                                            spliced
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of new genes.";
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                                                                                                                               rat
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ALD CONSTRUCTION OF THE CO
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Q8CHR4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
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X MEDLINE-22388257; PubMed=12477932;

X MEDLINE-22388257; PubMed=12477932;

X MEDLINE-22388257; PubMed=12477932;

X MEDLINE-2388257; PubMed=12477932;

X MILLINE-2388257; PubMed=12477932;

X MILLINE-2388257;

X MILLINE-2388257;

X MILLINE-2388257;

X MILLINE-2388257;
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Best Local S
Matches 33
                                                                                                                                             MGD; MGI:1313277; Vamp2.

GO; GO:0030672; C:specretory granule; IDA.

GO; GO:0030672; C:synaptic vesicle membrane; IDA.

GO; GO:0042589; C:zymogen granule membrane; IDA.

GO; GO:0042589; C:zymogen granule membrane; IDA.

GO; GO:0005543; F:phospholipid binding; IDA.

GO; GO:0000149; F:SNARE binding; IDA.

GO; GO:00017156; P:calcium ion-dependent exceptosis; IDA.

GO; GO:0017157; P:regulation of exceptosis; IDA.

GO; GO:0016083; P:synaptic vesicle fusion; IMP.

InterPro; IPR001388; Synaptobrevin.
                                                                                                                                                                                  PROSITE;
PROSITE;
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
ProDom; PD001229;
PROSITE; PS00417;
PROSITE; PS50892;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; BC039745; AAH39745.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Strausberg R.;
Submitted (NOV-2002) to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Jones S.J., Marra M.A., "Generation and initial analysis and mouse cDNA sequences", proc. Natl. Acad. Sci. U.S.A. 99.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-MAR-2003 (TrEMBLrel.
01-MAR-2003 (TrEMBLrel.
01-OCT-2003 (TrEMBLrel.
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01-MAR-2003
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM STRAIN=FVB/N;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
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                                                                                         PF00957; Synaptobrevin;
S; PR00219; SYNAPTOBREVN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 protein (Fragment).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FROM N.A.
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V_SNARE; 1.
; 14509 MW; F37D
   Synaptobrevin;
SYNAPTOBREVIN;
V_SNARE; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98.3%;
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25,
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Last annotation updat
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Pred. No. 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           tumor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99:16899-16903 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     F37D14A87BDAB1F6
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               of more than 15,000 full-length humar
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Best Local
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P4713;
Ol-NOV-1995 (Rel. 32, Created)
15-DEC-1998 (Rel. 37, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NON TER
SEQUENCE
                       DOMAIN
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DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                   This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the Ew the European Bioinformatics Institute. There are no restruse by non-profit institutions as long as its content modified and this statement is not removed. Usage by and entitles requires a license agreement (See http://www.isb-sorsend an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                               EMBL; AF035017; AAB88138.:
EMBL; U16801; AAA81376.1;
HSSP; P19065; 1F83.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=95324415; PubMed=7601005;
Knecht A.K., Good P.J., Dawid I.B., Harland R.M.;
"Dorsal-ventral patterning and differentiation of
neural tissue in the absence of mesoderm.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Xenopus laevis (African clawed frog).
Bukaryota; Metazoa; Chordata; Craniata; Ver
Amphibia; Batrachia; Anura; Mesobatrachia;
Xenopodinae; Xenopus.
                                                                                                                                                                                                                                               Pfam; PF00957; Synaptobrevin; 1.
PRINTS; PR00219; SYNAPTOBREVIN;
PRODOM; PD001229; SYNAPTOBREVIN;
PROSITE; PS00417; SYNAPTOBREVIN;
                                                                                                                                                                                                                                                                                                                  InterPro; IPR001388; Synaptobrevin. Pfam; PF00957; Synaptobrevin; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Development 121:1927-1935(1995).
-!- FUNCTION: Involved in the targeting and/or
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Submitted (NOV-1997) t
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SEQUENCE FROM N.A.
POO M.
    SEQUENCE
                                                                                                                                                             Transmembrane.
INIT_MET
                                                                                                                                                                                                      Acetylation;
                                                                                                                                                                                                                                PROSITE; PS50892;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE OF 32-113 FROM N.A.
                                                                                                                TRANSMEM
                                                                                                                                          DOMAIN
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    113 AA;
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92
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Belongs to the synaptobrevin family. Contains 1 v-SNARE coiled-coil homology domain.
                                                                                                                                                                                                                                                                                                                                                                                                          AAB88138.1; -.
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91
110
                                                                                                                                                                                                      coil;
                                                                                                                                                                                                                                SNARE;
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    Μ¥.
                                                                                                                                                                                                      Multigene family; Synapse;
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                                                                                        By similarity.
Cytoplasmic (Pot
Anchor for type
(Potential).
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Pred.
                   Vesicular (Potential).
N-acetylserine (By similarity)
v-SNARE coiled-coil homology.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                           There are no restrictions on its long as its content is in no way moved. Usage by and for commercial (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1.1e-16;
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Ype IV membrane
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                                                                                                                                                                                                      Synaptosome,
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                                                                                                                protein
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RX KITALUSEZ388257; PubMed=12477932;
RA KITALUSEZ388257; PubMed=1247932;
RA AITSCHULSEZ388257; PubMed=1247, Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Stapleton M., Justin R., Toshiyuki S., Carninci P., Prange C.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., McGwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
Villalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,
Villalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,
Villalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,
Villalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,
Villalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,
Villalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Morriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
RA Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
RA Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
RA Morriguez A.C., Grimwood J., Smailus D.E., Schnerch A., Schein J.E.,
RA Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
RA Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
RA Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
RA Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
RA Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
RA Krzywinski M.I., Skalska U., Smailus 
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02-MAR-2004 (TrEMBLrel. 27, Created)
02-MAR-2004 (TrEMBLrel. 27, Last sequence update)
02-MAR-2004 (TrEMBLrel. 27, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Xenopus laevis (African clawed frog).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
Xenopodinae; Xenopus; Xenopus.
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VAMP2-B-PROV.
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Klein S.L., Strausberg R.L., Wagner L., Pontius J., Clifton S.W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                     Klein S., Strausberg R.; the EMBL/GenBank/DDBJ databases. Submitted (OCT-2003) to the EMBL/GenBank/DDBJ databases. EMBL, BC00344; AMH60344.1; -. SEQUENCE 114 AA; 12472 MW; AEF2EDDCDF2D1DBF CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Genetic and genomic tools for Xenopus research: The NIH Xenopus initiative.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Richardson P.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Dev. Dyn. 225:384-391 (2002).
                                                                                                                                                                                                                                                                                                                                                                                                                              TISSUE=Embryo;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  57
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                                                       1 LSELDDRADALQAGASXFEXSAAKLKRKYWWKNLK 35
                                                                                                                                                l Similarity
32; Conserv
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           LSELDDRADALQAGASQFETSAAKLKRKYWWKNMK 92
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nilarity 91.4%;
Conservative
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91.4%;
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Pred. No. 1.7e-16;
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1.7e-16;
hes 2;
                                                                                                                                                                                                                      Length 114;
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A., Schein J.E.,
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Search completed: November 1, 2004, 17:59:09
Job time: 97.1875 secs

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Result
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Pred. No. is the number of results predicted by chance to have score greater than or equal to the score of the result being puand is derived by analysis of the total score distribution.
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protein search, using
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1: geneseqp1980s:*
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Match
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Gapop 10.0 ,
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Listing
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1, 2004, 17:52:26; Search time 108 Seconds (without alignments)
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AAU00250	AAY88240	AAW04182	AAR86824	AAR86821	AAR86822	ADM97008	ABW01720	ADG89012	AAY88244	ADF90406	AAY43845	ADF90403	AAY43843	ADM97005	ADM97007	ADM97006	ADG89011	ABW01705	ABW01718
Aau00250 SNARE hom	Aay88240 Human cel	Aaw04182 Cellubrev		VAMP	2 VAMP	8 Frog	0 Frog	N	Aay88244 Xenopus s	Adf90406 Rat VAMP-	ψ			Adm97005 Human VAM	Adm97007 Bovine VA	Mouse V	Bovine	Abw01705 Human VAM	Mouse

ALIGNMENTS

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The invention comprises clostridial neurotoxin substrate peptides which can serve as fluorescence resonant energy transfer assay (FRET) or quenched-signal substrates in assays for the proteolytic activities of clostridial neurotoxins. The invention further comprises Clostridium botulinum neurotoxin substrate peptides that can serve as immobilised substrates (i.e. bound to a solid phase) in assays for the proteolytic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               02-SEP-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     clostridial neurotoxin detection; food.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Clostridial neurotoxin substrate; botulinum neurotoxin substrate;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Clostridial neurotoxin protease substrate peptide
                                                                                                                                                                                                                                                                                                                                               Substrate useful in e.g. clostridial neurotoxin,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2002-499829/53.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Schmidt JJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Modified-site
                                                                                                                                                                                                                                                                      Claim 24; Page 15; 48pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     fluorescence resonant energy transfer assay; quenched-signal;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (USME-) US MEDICAL RES INST INFECTIOUS DISEASES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Stafford
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note= "The peptide is cleaved between these two residues
by the clostridial neurotoxin"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note= "N-fluoresceinyl-glycine"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RG;
                                                                                                                                                                                                                                                                                                                                               . an assay for the protease activity of comprises modified peptide or protein.
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RESULT 3
AAB48582
ID AAB4
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AC AAB4
XX
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AABSOJA
AABS
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Best Local S
Matches 41
                                                                                                                                                                                                                                                                                                                          Best Lo
                                                                                                                                                                                                                                                                                                                                                                     Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present sequence was investigated in the search for Botulinum inhibitors (BttxB). Previn compounds which inhibit the enzymatic a of BttxB and tetanus neurotoxins were isolated. Previns may be use construct compounds such as buforinins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gordon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VAMP2; antibacterial; Botulinum toxin inhibitor; BttxB; previn;
tetanus neurotoxin; buforinin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VAMP2 peptide
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                                                          AAB48582;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Novel Previn compounds useful for inhibiting the protease activity Botulinum B and tetanus toxins.
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                                                                                                       AAB48582 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure;
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l similarity 100.0%;
41; Conservative
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35; Conser
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                                                                                                                                                                                                                                                                                                                                                                                                                       40
                                                                                                                                                                                                                                                               LSELDDRADALQAGASQFETSAAKLKRKYWWKNIK 38
                                                                                                                                                                                                                              LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Page 5; 47pp; English
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                                                                                                       peptide;
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2e-17;
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Best Local S
Matches 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The present sequence is one of a number of peptide or peptide-like compounds, designated buforins, which inhibit the enzymatic activity of Botulinum toxin B (BttxB) and Tetanus neurotoxins. The buforins are useful for treating Botulinum or tetanus intoxication by administering a composition comprising a buforin to the subject prior to the contact with BttxB or tetanus intoxication. Antibodies specific for buforins are useful for detecting buforins by forming immunocomplexes. The buforins have improved circulatory half-life, solubility, resistance to degradation and interaction with the active site of the toxin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Novel
toxin
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2001-102250/11.
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                                                                                                                                                                                                                                                                                                                        Human; secreted protein; diagnosis; cytostatic; immunosuppressive;
                                                                                                                                                                                                                                                                                                                                                                                  Gene 49 human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAB39482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure; Page 5; 47pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  poisoning such as Botulinum toxin and tetanus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14-MAY-1999;
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                               WO200058340-A2
                                                                                                                                                                                                                                                                        nootropic; neuroprotective; antiviral; antialiergic; nepacotropic; anticonvulsant; antidiabetic; antiinflammatory; antiulcer; vulnerary; anticonvulsant;
                                                                                                                                                                                                                                                                                                                                                                                                                                     02-FEB-2001
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                                                                                   Bos taurus
                                                                                                                                                        female reproductive system disorder; immune disorder; woun cardiovascular disorder; neurological disease; infectious
                                                                                                                                                                                                                    food
                                                                                                                                                                                                                                           intibacterial; antifungal; antiparasitic;
                                                                                                                                      infection.
                                                                                                                                                                                                                       additive; preservative;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        l Similarity
35; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK 38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              otides capable of inhibiting the enzymatic activity of Botulinum and Tetanus neurotoxins useful for preventing or treating toxic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     40 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           81.9%;
ilarity 100.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                               secreted protein homologous amino acid sequence #141.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                protein;
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                                                                                                                                                                                                                                                                                                    antiviral;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 181; DB 4;
Pred. No. 2e-17;
                                                                                                                                                                                                                 chromosome identification; cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DR,
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                                                                                                                                                                                                                                                                                                    antiallergic; hepatotropic
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
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                                                                                                                                                                                                                                                   therapy;
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                                                                                                                                                                                                healing;
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RESULT 5
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                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local S
Matches 35
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07-JAN-2000; 2000US-0174850P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure; Page 390;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Fifty nucleic acid molecules encoding human secreted proteins, usefuthe prevention, treatment and diagnosis of cancer, immune disorders cardiovascular disorders and neurological diseases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (HUMA-) HUMAN GENOME SCI INC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAB39484 represent
             WO2003016475-A2
                                                                                                                                                            Human Protein
                                                                                                                                                                                               29-JAN-2004
                                                                                                                                                                                                                                                                      ADE57598 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
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                                                                                  pain; neuronal tissue; gene therapy;
segmental nerve injury; chronic constriction injury; CCI;
nerve injury; SNI; Chung.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              epresent human secreted polypeptide sequences and proteins to them, which are given in the exemplification of the pro
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                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
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                                                                                                                                                            P19065,
                                                                                                                                                                                                                                                                      protein; 115 AA
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                                                                                                                                                            SEQ ID NO 3460
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Pred. No. 2.8e-17;
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Combined is differentially regulated an array, a method for identifying an agent that increases or decreases the expression of the polynucleotide sequence that is differentially expressed in neuronal tissue of a first animal combined by the polynucleotide sequence that is differentially expressed in neuronal tissue of a first animal combined by the expression of a polynucleotide sequence which is differentially the expressed in an animal subjected to pain, a method for identifying a compound that regulates the activity of one or more of the polynucleotides, a method for producing a pharmaceutical composition, a compound that regulates the activity of one or more of the compound that regulates the activity of an animal of one or more activity in an animal of one or more of the polynucleotides given in the composition, a method for identifying a compound useful in treating the one or more composition, an enthod for identifying a compound useful in treating compain and a pharmaceutical composition comprising the one or more condulates its activity is useful for preparing a medicament for treating compain (e.g. spinal segmental nerve injury (Chung), chronic constriction conjury (CCI) and spared nerve injury (SNI)) in an animal (e.g. gene the specification, which is differentially expressed during pain. Note: The sequence data for this patent did not form part of the printed constriction is patent did not form part of the printed constriction is patent did not form part of the printed constriction is patent did not form part of the printed constriction is the printed in the printed constriction in the printed constriction is patent did not form part of the printed constriction in the pr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The invention discloses a composition comprising two or more isolated in or human polynucleotides or a polynucleotide which represents a fragment derivative or allelic variation of the nucleic acid sequence. Also claimed are a vector comprising the novel polynucleotide, a host cell comprising the vector, a method for identifying a nucleotide sequence which is differentially regulated in an animal subjected to pain and a victor is differentially regulated in an animal subjected to pain and a victor is differentially regulated in an animal subjected to pain and a victor is differentially regulated in an animal subjected to pain and a victor is differentially regulated in an animal subjected to pain and a victor is differentially regulated in an animal subjected to pain and a victor is described.
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01-NOV-2001; 2001US-0346382P.
26-NOV-2001; 2001US-0333347P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1; Page; 1017pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New composition comprising two or more isolated polypeptides, useful for preparing a medicament for treating pain in an animal.
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                                                               ftp.wipo.int/pub/published_pct_sequences.
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BAYER AG.
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rat

Sequence 115 AΑ;

81.9%;

Length 115;

0,

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                                                                                                                                      Query Match
Best Local S
Matches 35
                                           29-JAN-2004
                                                          ADE57612;
                                                                       ADE57612 standard; protein; 115 AA.
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                                                                                                                                        35;
                                                                                                                        4
                                                                                                                                               Similarity
                                                                                                                         LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK
                                                                                                           LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK
                                                                                                                                       Conservative
                                            (first
                                            entry)
                                                                                                                                               100.0%;
                                                                                                                                        0
                                                                                                                                              Score 181; DB 7;
Pred. No. 6.6e-17
                                                                                                                                         Mismatches
                                                                                                                                              6.6e-17;
                                                                                                            93
                                                                                                                                         0
                                                                                                                                        Gaps
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Rat; pain; neuronal tissue; gene therapy; spinal segmental nerve injury; chronic constriction injury; CCI; spared nerve injury; SNI; Chung.

Rat Protein

Q64357,

SEQ ID NO 3474.

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RESULT 7
ADE60831
ID ADE6
XX
AC ADE6
ADE60831
ADE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local S
Matches 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14-AUG-2001;
01-NOV-2001;
26-NOV-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The invention discloses a composition comprising two or more iso or human polynucleotides or a polynucleotide which represents a derivative or allelic variation of the nucleic acid sequence. All
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New composition comprising two or more isolated polypeptides, useful preparing a medicament for treating pain in an animal.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    specification, but was obtained in electr
ftp.wipo.int/pub/published_pct_sequences
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                                  Human Protein P19065, SEQ ID NO 6743.
                                                                                                          29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENBANK;
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                                                                                                                                                                                                                                                   ADE60831 standard; protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                      59
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              l Similarity
35; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GEN HOSPITAL CORP. BAYER AG.
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                                                                                                                                                                                                                                                                                                                                                                                                                                  LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           81.9%; Score 181; DB 7; llarity 100.0%; Pred. No. 6.6e-17; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2001US-0312147P.
2001US-0346382P.
2001US-0333347P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A,
                                                                                                          (first entry)
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RESULT 8
ADE57606
ID ADE5
XX

ADE57606 standard; protein; 115

片 Ś

59

LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK 38 LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK

93

Query Match Best Local S Matches 35

1 Similarity 35; Conser

81.9%; |larity 100.0%; |Conservative |

0;

Score 181; DB 7; Pred. No. 6.6e-17; 0; Mismatches 0;

0

0

Gaps

0

Length 115;

Sequence

115

A

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The invention discloses a composition comprising two or more isolated rat cor human polynuclectides or a polynuclectide which represents a fragment, contributed are a vector comprising the movel polynuclectide, a host cell comprising the vector, a method for identifying a nuclectide sequence. Also comprising the vector, a method for identifying a nuclectide sequence comprising the vector, a method for identifying a nuclectide sequence comprising the vector, a method for identifying an agent composition of the polynuclectide sequence which is differentially expressed in neuronal tissue of a first animal composition of a polynuclectide sequence which is differentially expressed in neuronal tissue of a first animal compound that regulates the activity of one or more of the polynuclectides sequence which is differentially compound that regulates the activity of one or more of the polynuclectides, a method for producing a pharmaceutical composition, a compound that regulates the activity of one or more of the polynuclectides, a method for producing a pharmaceutical composition, a polynuclectide or identifying a compound useful in treating compainting a method for identifying a compound useful in treating compainting a method for identifying a compound useful in treating compainting a compound that compainting a compound useful in treating compainting a compound useful in treating compainting a compound useful in treating compainting compainting a compound useful compainting and compound that compainting and compound that compainting and compainting a compound compainting and compound compainting a medica
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01-NOV-2001;
26-NOV-2001;
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spinal
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 1; Page; 1017pp; English
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                                           ftp.wipo.int/pub/published_pct_sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       pain; neuronal tissue; gene therapy;
segmental nerve injury; chronic constriction injury; CCI;
nerve injury; SNI; Chung.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GEN HOSPITAL CORP
BAYER AG.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; 2001US-0312147P.
; 2001US-0346382P.
; 2001US-0333347P.
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                                                                       Query Match
Best Local S
Matches 35
                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             claimed are a vector comprising the novel polynucleotide, a host cell comprising the vector, a method for identifying a nucleotide sequence which is differentially regulated in an animal subjected to pain and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The invention discloses a composition comprising two or more isolal or human polynucleotides or a polynucleotide which represents a fraderivative or allelic variation of the nucleic acid sequence. Also
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 1; Page; 1017pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New composition comprising two or more isolated polypeptides, useful for preparing a medicament for treating pain in an animal.
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(FARB )
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01-NOV-2001; 2001US-0346382P.
26-NOV-2001; 2001US-0333347P.
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                                                                                                                                                                                                          specification,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14-AUG-2002; 2002WO-US025765
                                                                                                                                                                                   ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           invention discloses a
59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    pain; neuronal tissue; gene therapy;
segmental nerve injury; chronic constriction injury; CCI;
nerve injury; SNI; Chung.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GEN HOSPITAL CORP.
BAYER AG.
                                                                                           Similarity
LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK
                                  LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK 38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       D'urso D,
                                                                         Conservative
                                                                                                                                                     A
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                                                                                                                                                                                                          but was obtained in electronic form directly from WIPO at
                                                                                         81.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Befort K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ħ
                                                                         0
                                                                                           Score 181; DB 7;
Pred. No. 6.6e-17;
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                                                                         Mismatches
                                                                                                            Length 115;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             or more isolated
                                                                         0
                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         fragment,
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RESULT 9
ADE60829
AD ADE60829
AC ADE6

                                                                                     The invention discloses a composition comprising two or more isolated rat cor human polynucleotides or a polynucleotide which represents a fragment, cc derivative or allelic variation of the nucleic acid sequence. Also cc claimed are a vector comprising the novel polynucleotide, a host cell cc which is differentially regulated in an animal subjected to pain and a cc kit to perior the method, an array, a method for identifying an agent that increases or decreases the expression of the polynucleotide sequence that is differentially expressed in neuronal tissue of a first animal cc that is differentially expressed in neuronal tissue of a first animal cc expressed in an animal subjected to pain, a method for identifying a compound which regulates the expressed in an animal subjected to pain, a method for identifying a compound that regulates the activity of one or more of the polynucleotides, a method for producing a pharmaceutical composition, a cc polynucleotides, a method for more of the polypeptides given in the cativity in an animal of one or more of the polypeptides given in the cativity in an animal of one or more of the polypeptides given in the cativity in an animal of or identifying a compound useful in treating compound (e.g. spanal segmental nerve injury (Cumg), chronic constriction composition comprising the one or more of polypeptides or their antibodies. The polynucleotide or the compound that modulates its activity is useful for preparing a medicament for treating pain. Note: the specification, which is differentially expressed during pain. Note: The sequence data for this patent did not form part of the printed composition, but was obtained in electronic form directly from WIPO at the specification, but was obtained in electronic form directly from WIPO at the specification will shed not sequences.
                                                                 specification, but was obt;
ftp.wipo.int/pub/published_
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New composition comprising two or more isolated polypeptides, useful for preparing a medicament for treating pain in an animal.
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01-NOV-2001; 2001US-0346382P
26-NOV-2001; 2001US-0333347P
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BAYER AG.
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Query Match
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81.9%; ilarity 100.0%; Conservative (

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Score 181; DB 7; Pred. No. 6.6e-17; 0; Mismatches 0;

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RESULT 10
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CC, which is differentially regulated in an animal subjected to pain and a computation of decreases the expression of the polymucleotide sequence that increases or decreases the expression of the polymucleotide sequence that is differentially expressed in neuronal tissue of a first animal compounds the polymucleotide sequence which is differentially expressed in neuronal tissue of a first animal compound which regulates the expressed in an animal subjected to pain, a method for identifying a compound which regulates the compound that regulates the activity of one or more of the compound that regulates the activity of one or more of the compound that regulates the activity of one or more of the compound for identifying a compound or small molecule that regulates the compound that regulates the compound or small molecule that regulates the compositivity in an animal of one or more of the polypeptides given in the composition, a method for identifying a compound useful in treating compain and a pharmaceutical composition comprising the one or more complicated that composition comprising the one or more complicates or their antibodies. The polypeptides or the compound that composition composition constriction conjury (CCI) and spared nerve injury (Chung), chronic constriction conjury (CCI) and spared nerve injury (Chung), chronic constriction conficient in the sequence presented is a rat protein (shown in Table 2 of the specification) which is differentially expressed during pain. Note: composition but was obtained in electronic form directly from WIPO at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14-AUG-2001; 2001US-0312147P
01-NOV-2001; 2001US-0346382P
26-NOV-2001; 2001US-0333347P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Rat; pain; neuronal tissue; gene therapy; spinal segmental nerve injury; chronic constriction injury; CCI; spared nerve injury; SNI; Chung.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The invention discloses a composition comprising two or more isolated or human polynucleotides or a polynucleotide which represents a fragmed derivative or allelic variation of the nucleic acid sequence. Also claimed are a vector comprising the novel polynucleotide, a host cell comprising the vector, a method for identifying a nucleotide sequence this is a sequence of the vector.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New composition comprising two or more isolated polypeptides, useful preparing a medicament for treating pain in an animal.
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(FARB )
                                                               specification,
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                                                           but was obtained in electronic form
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Sequence 115 AA

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The invention discloses a composition comprising two or more isolated rat cor human polynucleotides or a polynucleotide which represents a fragment, cc derivative or allelic variation of the nucleic acid sequence. Also claimed are a vector comprising the novel polynucleotide, a host cell comprising the vector, a method for identifying a nucleotide sequence which is differentially regulated in an animal subjected to pain and a kit to perform the method, an array, a method for identifying an agent that increases or decreases the expression of the polynucleotide sequence that is differentially expressed in neuronal tissue of a first animal composition of a polynucleotide sequence which is differentially expressed in neuronal tissue of a first animal compound that regulates the activity of one or more of the compound that regulates the activity of a pain an enthod for identifying a compound that regulates the activity of a paramaceutical composition, a compound that regulates the activity of a pharmaceutical composition that polynucleotides a method for identifying a compound useful in treating composition, a method for identifying a compound useful in treating composition, a method for identifying a compound useful in treating pain and a pharmaceutical composition comprising the one or more composition is activity is useful for preparing a medicament for treating pain (e.g. spinal segmental nerve injury (Chung), chronic constriction contriction injury (Chung). The sequence presented is a rat protein (shown in Table 2 of the specification, but was obtained in electronic form directly from WIPO at specification, but was obtained in electronic form directly from WIPO at
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Best Local S
Matches 35
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01-NOV-2001;
26-NOV-2001;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   preparing a medicament
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BAYER AG.
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; 2001US-0346382P.
; 2001US-0333347P.
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Pred. No.
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The invention discloses a composition comprising two or more isolated rat CC or human polynucleotides or a polynucleotide which represents a fragment, CC derivative or allelic variation of the nucleic acid sequence. Also CC claimed are a vector comprising the novel polynucleotide, a host cell CC comprising the vector, a method for identifying a nucleotide sequence which is differentially regulated in an animal subjected to pain and a CC kit to perform the method, an array, a method for identifying an agent that is differentially expressed in neuronal tissue of a first animal CC subjected to pain, a method for identifying an agent CC the expression of a polynucleotide sequence which is differentially expressed in expensive which is differentially expressed in an animal subjected to pain, a method for identifying a compound which regulates the expression, a method for identifying a compound that regulates the activity of one or more of the polynucleotides, a method for producing a pharmaceutical composition, a method for identifying a compound useful in treating pain and a pharmaceutical composition comprising the one or more CC polynucleotides or their antibodies. The polynucleotide or the compound that composition in the activity is useful for preparing a medicament for treating pain (e.g. spinal segmental nerve injury (Chung), chronic constriction conjury (CCI) and spared nerve injury (SNI)) in an animal (e.g. gene
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(FARB )
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01-NOV-2001;
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chronic co
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derivative of allelic variation of the nucleic acid sequence. Also calaimed are a vector comprising the novel polynucleotide, a host cell comprising the vector, a method for identifying a nucleotide sequence which is differentially regulated in an animal subjected to pain and a kit to perform the method, an array, a method for identifying an agent that increases or decreases the expression of the polynucleotide sequence that is differentially expressed in neuronal tissue of a first animal subjected to pain, a method for identifying a compound which regulates the expression of a polynucleotide sequence which is differentially expressed in an animal subjected to pain, a method for identifying a compound that regulates the activity of one or more of the polynucleotides, a method for producing a pharmaceutical composition, a method for identifying a compound of for identifying a compound of polynucleotides, a method for producing a pharmaceutical composition, a method for identifying a compound or small molecule that regulates the activity in an animal of one or more of the polypeptides given in the specification, a method for identifying a compound useful in treating

The invention discloses a composition comprising two or human polynucleotides or a polynucleotide which re

represents a or more isolated

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Claim 1; Page; 1017pp; English. New composition comprising preparing a medicament for

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two or more isolated polypeptides, useful for treating pain in an animal.

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                            The invention discloses a composition comprising two or more isolated rat or human polynucleotides or a polynucleotide which represents a fragment, derivative or allelic variation of the nucleic acid sequence. Also claimed are a vector comprising the novel polynucleotide, a host cell comprising the vector, a method for identifying a nucleotide sequence which is differentially regulated in an animal subjected to pain and a kit to perform the method, an array, a method for identifying an agent that increases or decreases the expression of the polynucleotide sequence that is differentially expressed in neuronal tissue of a first animal subjected to pain, a method for identifying a compound which regulates to pain, a method for identifying a compound which regulates are expression of a polynucleotide sequence which is differentially
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                  expressed in an animal subjected to pain,
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nerve injury; SNI; Chung.
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Pred. No. 6.6e-17;
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                                                                                                                                                                                                                                                                                                                                                                                                            Costigan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                a method for identifying a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 115;
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RESULT 15
ADE57592
ID ADE57
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The invention discloses a composition comprising two or more isolated rat or human polynucleotides or a polynucleotide which represents a fragment, derivative or allelic variation of the nucleic acid sequence. Also claimed are a vector comprising the novel polynucleotide, a host cell comprising the vector, a method for identifying a nucleotide sequence which is differentially regulated in an animal subjected to pain and a kit to perform the method, an array, a method for identifying an agent that increases or decreases the expression of the polynucleotide sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 compound that regulates the activity of one or more of the polynucleotides, a method for producing a pharmaceutical composition, a method for identifying a compound or small molecule that regulates the activity in an animal of one or more of the polypeptides given in the specification, a method for identifying a compound useful in treating pain and a pharmaceutical composition comprising the one or more polypeptides or their antibodies. The polynuclectide or the compound that modulates its activity is useful for preparing a medicament for treating pain (e.g. spinal segmental nerve injury (Chung), chronic constriction injury (CCI) and spared nerve injury (SNI) in an animal (e.g. gene therapy). The sequence presented is a human protein (shown in Table 2 of the specification) which is differentially expressed during pain. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic form directly from WIPO at
                                                                                                                                                                                                        New composition comprising preparing a medicament for
                                                                                                                                                                   Claim 1; Page; 1017pp; English
                                                                                                                                                                                                                                                                                                                                                                                                      14-AUG-2001; 2001US-0312147P
01-NOV-2001; 2001US-0346382P
26-NOV-2001; 2001US-0333347P
                                                                                                                                                                                                                                                               GENBANK;
                                                                                                                                                                                                                                                                             WPI; 2003-268312/26.
                                                                                                                                                                                                                                                                                                                  Woolf C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14-AUG-2002; 2002WO-US025765
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO2003016475-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Rattus norvegicus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Rat; pain; neuronal tissue; gene therapy; spinal segmental nerve injury; chronic constriction injury; CCI; spared nerve injury; SNI; Chung.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Rat Protein Q64357,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADE57592;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADE57592 standard; protein; 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 115 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ftp.wipo.int/pub/published_pct_sequences.
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                                                                                                                                                                                                                                                                                                                                                   GEN HOSPITAL CORP.
BAYER AG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             35;
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                                                                                                                                                                                                                                                             Q64357
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQ ID NO 3454.
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                                                                                                                                                                                                                                                                                                                  Befort K,
                                                                                                                                                                                                      two or more isolated polypeptides, useful for treating pain in an animal.
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Pred. No. 6.6e-17;
                                                                                                                                                                                                                                                                                                                  Costigan
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CC that is differentially expressed in neuronal tissue of a first animal CC subjected to pain, a method for identifying a compound which regulates CC the expression of a polynucleotide sequence which is differentially CC expressed in an animal subjected to pain, a method for identifying a compound that regulates the activity of one or more of the CC compound that regulates the activity of one or more of the CC polynucleotides, a method for producing a pharmaceutical composition, a cC polynucleotide of the compound or small molecule that regulates the CC contivity in an animal of one or more of the polynucleotide given in the CC pain (e.g. spinal segmental composition comprising the one or more CC pain (e.g. spinal segmental nerve injury (Cnng), chronic compound that cC modulates its activity is useful for preparing a medicament for treating CC pain (e.g. spinal segmental nerve injury (SNI)) in an animal (e.g. gene CC the specification) which is differentially expressed during pain. Note: The sequence data for this patent did not form part of the printed composition, but was obtained in electronic form directly from WIPO at ftp.wipo.int/pub/published_pct_sequences.

SQ Sequence 115 AA;

Query Match

So Sequence 115 AA;

Query Match

ALSELDBRADALQAGASQFETSAAKLKRKYWWKNLK 38

Query Local Similarity 10.00%; Pred. No. 6.6e-17; Length 115; Matches 35; Conservative 0; Mismatches 0; Indels 0; Gaps 0; Matches 35; Length 115 | Length 1

Search completed: November 1, 2004, 18:04:04
Job time : 109 secs

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Database :
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Maximum DB seq
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Perfect score:
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length: 2000000000
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221
1 XGGLSELDDRADALQAGASQ......TSAAKLKRKYWWKNLKGGGC 42
478139 seqs, 66318000 residues
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                                                                                                                           Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GenCore version 5.1.6 (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                              478139
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	œ	7	6	σ	4	ω	ν	1	Result
176	176	176	176	176	176	176	177	177	177	177	177	177	179	179	181	181	181	181	181	181	181	181	œ	181	181	\sim	Score
79.6	9	79.6	9	9	φ.	79.6	0		80.1	80.1						:	81.9					:	Ë	81.9	۲	9 !	% Query Match I
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US-09-513-783A-28	-09-483-66	8-621-018B-	-08-409-373	-08-409-373B-	-09-483-665-	-08-621-01	-09-534-572-	15-96	-09	-09-534-572-	-09-015-9	US-08-760-001-9	US-09-483-665-11	-08-621-	US-09-483-665-10	-08-	US-08-621-018B-10	US-08-393-985-16	8-409-37	US-08-409-373B-4	9-570-023-	70-022-	9-534-572-1	-09-015-96	US-08-760-001-11	US-09-962-360B-9	ID
Sequence 28, App⊥	9, Appl	Sequence 9, Appli	3, App1	e 3, Appi	e 6, Appi	ice 6,	nce 8, Appl	ice 8, Appi	e 8, Appi	9	Sequence 9, Appli	9	e 11, App	e 11	e 10	27	10,	16,		4	0	, App	Sequence 11, Appl	equence 11, App	۲	uence 9,	Description

Sequence 11, Application US/08760001
Patent No. 5962637
GENERAL INFORMATION:
APPLICANT: Shone, Clifford C.
APPLICANT: Hallis, Bassam
APPLICANT: James, Benjamin A. F.
APPLICANT: Quinn, Conrad P.
TITLE OF INVENTION: TOXIN ASSAY
NUMBER OF SEQUENCES: 11
CORRESPONDENCE ADDRESS:

l, Application US/08760001 5962637

176 79.6 350 4 US-09-513-783A-30 176 79.6 350 4 US-09-9430-656-28 170 76.9 35 4 US-09-962-360B-4 169 76.5 35 4 US-09-962-360B-3 165 74.7 118 1 US-08-393-985-14 117 52.9 56 3 US-08-819-286-5 104 47.1 94 4 US-09-621-976-6274 193 42.1 20 US-08-819-286-13 194 49.3 71 4 US-09-621-976-556-6 198 39.8 86 4 US-09-513-996-5451 198 39.8 102 1 US-08-409-373B-2 198 39.8 102 3 US-08-409-373B-2 198 39.8 102 3 US-08-621-018B-2 198 39.8 102 4 US-09-483-665-2 198 39.8 102 4 US-09-483-665-2 198 39.8 102 4 US-09-9621-018B-8 198 39.8 102 4 US-09-9621-018B-8 198 39.8 102 4 US-09-483-665-2 198 39.8 102 4 US-09-483-665-2 198 39.8 102 4 US-09-483-665-2 198 39.8 102 4 US-09-483-665-8	45	44	43	42	41	40	3 9	38	37	ω 6	ω G	ω 4	ယ ယ	32	3 <u>1</u>	30	29
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US-09-513-783A-30 US-09-430-65-28 US-09-962-360B-4 US-09-962-360B-3 US-08-819-286-5 US-08-819-286-5 US-08-819-286-5 US-09-621-976-6274 US-08-819-286-13 US-09-513-990-5451 US-08-409-373B-2 US-08-409-373B-2 US-08-621-018B-2 US-09-623-360B-10 US-08-621-018B-8 US-08-621-018B-8 US-08-621-018B-8	4	w	44	4.	ω	\vdash	Н	4	4	w	4.	w	_	4	4.	4	4
				US-09-483-665-2	US-08-621-018B-2	US-08-409-373B-2	US-08-409-373B-2	US-09-513-999C-5451	US-09-621-976-5656	US-08-819-286-13	US-09-621-976-6274	US-08-819-286-5	US-08-393-985-14	US-09-962-360B-3	US-09-962-360B-4	US-09-430-656-28	US-09-513-783A-30
	a, Appii	8, Appli		Z, Appii	2, Appli	-	Z, Appli	5451, Ap	5656, AD	13, Appi	6274, Ap	5, Appii	14, Appi	3, Appii	4, Appli	28, Appl	30, App1

ALIGNMENTS

APPLICANT: Schmidt, James J. APPLICANT: Stafford, Robert G. APPLICANT: Stafford, Robert G. TITLE OF INVENTION: High Throughput Assays for TITLE OF INVENTION: Neurotexins FILE REFERENCE: 003/224/SAP CURRENT APPLICATION NUMBER: US/09/962,360B CURRENT FILING DATE: 2002-08-19 PRIOR APPLICATION NUMBER: US 60/235,050 PRIOR APPLICATION NUMBER: US 60/235,050 PRIOR FILING DATE: 2001-09-25 NUMBER OF SEG ID NOS: 12 SOFTWARE: Apple Macintosh Microsoft Word 6.0 SEG ID NO RESULT 1 US-09-962-360B-9 Sequence 9, Application US/09962360B Patent No. 6762280 GENERAL INFORMATION: , OTHER INFORMATION: Xaa at 1 is N-fluresceinyl-glycine US-09-962-360B-9 RESULT 2 US-08-760-001-11 밁 Ş Query Match Best Local S Matches 41 LENGTH: 42 TYPE: PRT ORGANISM: Artificial sequence FEATURE: OTHER INFORMATION: synthetic peptide chosen such that it is cleaved by BONT FEATURE: NAME/KEY: misc_feature LOCATION: 1 ch 99.5%; Score 220; DB 4; 1 1 Similarity 100.0%; Pred. No. 1.4e-22; 41; Conservative 0; Mismatches 0; GGLSELDDRADALQAGASQFETSAAKLKRKYWWKNLKGGGC 42 GGLSELDDRADALQAGASQFETSAAKLKRKYWWKNLKGGGC for the Proteolytic Activities of Clostridi Length 42; Indels 42 0 Gaps 0

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Patent No. 6043042

GENNERAL INFORMATION:

APPLICANT: Shone, Clifford C.
APPLICANT: Hallis, Bassam
APPLICANT: James, Benjamin A. F.
APPLICANT: Quinn, Conrad P.
TITLE OF INVENTION: TOXIN ASSAY
NUMBER OF SEQUENCES: 11
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 3
US-09-015-960-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; TOPOLOGY: linear; MOLECULE TYPE: peptide US-08-760-001-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 11,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEFAX: 202-371-2543
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                        ZIP: 20005-3934

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PALENTIN Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/760,001
FILING DATE: Herewith
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Esmond, Robert W.
REGISTRATION NUMBER: 32,893
REFERENCE/DOCKET NUMBER: 1581.0120001
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-2600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/GB95/01279
FILING DATE: 02-JUN-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                   APPLICATION NUMBER: FILING DATE:
                                                                                                                                                                                                                                                                                  STREET: 1100 New CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 35 amino acids
TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STREET: 1100 New CITY: Washington
                                                                                                                                                                                                                                                 COUNTRY:
                                                                                                                                                                                                                                                                                                                 ADDRESSEE: Sterne, Kessler, Goldstein & Fox, P.L.L.C. STREET: 1100 New York Ave., N.W., Suite 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE: Sterne, Kessler, Goldstein & Fox, P.L.L.C. STREET: 1100 New York Ave., N.W., Suite 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               35;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Application US/09015960
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linear
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                                                                                         US/09/015,960
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; Pred. No. 1.9e-17;
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Patent No. 6337386
GENERAL INFORMATION:
APPLICANT: Shone, Clifford C.
APPLICANT: Hallis, Bassam
APPLICANT: James, Benjamin A. F.
APPLICANT: Quinn, Conrad P.
TITLE OF INVENTION: TOXIN ASSAY
NUMBER OF SEQUENCES: 19
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US-09-534-572-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ZIP: 20005-3934

COMPUTER READABLE FORM:
MEDIUM TYPE; Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/534,572
FILING DATE: Herewith
CLASSIFICATION: DATA:
PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 81.9%; Score 181; DB 3; Best Local Similarity 100.0%; Pred. No. 1.9e-17; Matches 35; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                 APPLICATION NUMBER: 09/015,960
FILING DATE: 30-JAN-1998
PRIOR APPLICATION DATA: 88/760,001
APPLICATION NUMBER: 08/760,001
FILING DATE: 30-DEC-1996
PRIOR APPLICATION DATA: PCT/GB95/01279
APPLICATION UMBER: PCT/GB95/01279
FILING DATE: 02-JUN-1995
ATTORNEY/AGENT INFORMATION:
ATMED: ACCOUNT DATA: CACACT WITHER
                                                                    TELEFAX: 202-371-2543
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEFAX: 202-371-2543
INFORMATION FOR SEQ ID NO:
                                                                                                                      REFERENCE/DOCKET NUMBER: 19
TELECOMMUNICATION INFORMATION
TELEPHONE: 202-371-2600
SEQUENCE CHARACTERISTICS:
LENGTH: 35 amino acids
TYPE: amino acid
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LENGTH: 35 amino acids
TYPE: amino acid
STRANDENESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REGISTRATION NUMBER: 32,893
REFERENCE/DOCKET NUMBER: 1581.0120001
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-2600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                      NAME: Esmond, Robert W. REGISTRATION NUMBER: 32,893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4 LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK 38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Application US/09534572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              E: Sterne, Kessler, Goldstein & Fox, P.L.L.C. 1100 New York Ave., N.W., Suite 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         USA
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Gaps

STRANDEDNESS:

TOPOLOGY:

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CURRENT APPLICATION NUMBER: US/09/570,022
CURRENT FILING DATE: 2000-05-12
PRIOR APPLICATION NUMBER: 60/134,446
PRIOR FILING DATE: 1999-05-17
NUMBER OF SEQ ID NOS: 26
SOFTMARE: PatentIn Ver. 2.1
SEQ ID NO 16
CENOTH: 40
TYPE: PAT
ORGANISM: Homo sapiens
US-09-570-022-16
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US-09-570-023-8
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                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
APPLICANT: GARCIA, GREGORY E.
APPLICANT: GORDON, RICHARD K
APPLICANT: MOORAD, DEBBIE R.
APPLICANT: DOCTOR, BHUPENDRA
APPLICANT: DOCTOR, BHUPENDRA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local
                                                                                                                                                                                     SOFTWARE: PatentIn Ver. 2.1 SEQ ID NO 8
                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 8, Application US/09570023 Patent No. 6713444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
Query Match
Best Local Similarity
                                         FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: Synthetic
OTHER INFORMATION: VAMP2
-09-570-023-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Patent No.
                                                                                                                                                                                                                    APPLICANT: MOORAD, DEBBIE R.
APPLICANT: DOCTOR, BHUDENDRA P.
APPLICANT: DOCTOR, BHUDENDRA P.
TITLE OF INVENTION: SUFCRIN I AS A SPECIFIC INHIBITOR AND THERAPEUTIC AGENT
TITLE OF INVENTION: FOR BOTULINUM TOXIN B AND TETANUS NEUROTOXINS
FILE REFERENCE: 37833-20004.00
CURRENT FILING DATE: 2000-05-12
CURRENT FILING DATE: 2000-05-12
NUMBER OF SEQ ID NOS: 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: MOORAD, DEBORAH R.
APPLICANT: DOCTOR, BHUPENDRA P.
APPLICANT: GARCIA, GREGORY E.
TITLE OF INVENTION: PREVINS AS SPECIFIC INHIBITORS AND THERAPEUTIC
TITLE OF INVENTION: FOR BOTULINUM TOXIN B AND TETANUS NEUROTOXINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: GORDON, RICHARD K. APPLICANT: MOORAD, DEBORAH R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILE REFERENCE: 38644-170531
                                                                                                                              ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MOLECULE TYPE:
                                                                                                                                                                   LENGTH: 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16, 45,
40, 6573244
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                                                                                                                                                                                                                                                                                                                                                                        GORDON, RICHARD K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
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100.0%; Pr
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100.0%; Pr
0;
 81.9%;
100.0%;
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   Score 181;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
   DB 4; Length 40; 2.2e-17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 40;
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Sequence 4, Application US/08409373B Patent No. 5650280 Patent No. 5650280 5585240

GENERAL INFORMATION:

APPLICANT: Stuart, Susan G.

APPLICANT: Hawkins, Phillip R.

APPLICANT: Seilhamer, Jeffrey J.

APPLICANT: Seilhamer, Jeffrey J.

TITLE OF INVENTION: CELLUBREVIN HOMOLOG

NUMBER OF SEQUENCES: 4

CORRESPONDENCE ADDRESS:

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RESULT 7
US-08-409-373B-4
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COMPOTER: IBM COMPATION:
OPERATING SYSTEM: DOS
SOFTWARE: FASCSCO Version 1.5
APPLICATION NUMBER: US/08/409,3
FILING DATE: 23-MAR-1995
CLASSIFICATION: 43-5
ATTORNEY/AGENT INFORMATION:
NAME: Luther, Barbara J
REGISTRATION NUMBER: 33,954
REFERENCE/DOCKET NUMBER: 9PF-00
TELECOMMUNICATION INFORMATION:
TELECHONE: 415-855-0555
TELECHONE: 415-855-0555
RESULT 8
US-08-409-373B-4
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                                                                                                                                                    Query Match
Best Local (
                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                        INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 116 amino acid
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I 16 amino acids

I PE: amino acid

STRANDEDNESS: si-
TOPOLOGY: 1:

OLECULF

MTT
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COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Stuart, Susan G.
APPLICANT: Hawkins, Phillip R.
APPLICANT: Seilhamer, Jeffrey J.
TITLE OF INVENTION: CELLUBREVIN HOMOLOG
                                                                                                                                                                                                                      IMMEDIATE SOURCE:
LIBRARY: GenBa
CLONE: X76199
                                                                                                                                                                                                                                                                        MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS:
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CITY: Palo Alto
STATE: CA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE:
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                                                                                          4 LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK 38
                                                                                                                                    l Similarity
35; Conserv
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                                                                   LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK 94
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                                                                                                                                                                                                                                      GenBank
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                                                                                                                                    Conservative
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                                                                                                                                                  81.9%; Score 181; DB 1;
100.0%; Pred. No. 7.2e-17;
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                                                                                                                                      0,
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                                                                                                                                      Mismatches
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AUDKESSEE: Incyte Pharmaceuticals, Inc. STREET: 3174 Porter Drive CITY: Pai Alto

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RESULT 9
US-08-393-985-16
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GENERAL INFORMATION:
APPLICANT: Schell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 16, Application US/08393985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: 415-852-0195
INFORMATION FOR SEQ ID NO: 4:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: amino acid
STRANDEDNESS: sing
TOPOLOGY: linear
MOLECULE TYPE: pepti
ATTORNEY/AGENT INFORMÁTION:
NAME: Sholtz, Charles K.
REGISTRATION NUMBER: 38,615
REFERENCE/DOCKET NUMBER: 867
TELECOMMUNICATION INFORMATION:
                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Flopy disk
COMPUTER: IBM PC comparible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/393,985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IMMEDIATE SOURCE:
LIBRARY: GenBa
CLONE: X76199
                                                                                                                                                                                                                                                                                                                                  APPLICANT: Scheller, Richard H.
TITLE OF INVENTION: Methods and Compositions for Modulation
TITLE OF INVENTION: of Vesicular Release
NUMBER OF SEQUENCES: 35
CORRESPONDENCE ADDRESS:
ADDRESSEE: Dehlinger & Associates
STREET: 350 Cambridge Avenue, Suite 250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
LENGTH: 116 amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELECOMMUNICATION INFORMATION: 115-855-0555
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CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/409,373B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                     STREET: 350 CITY: Palo Alto CTATE: CA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Luther, Barbara J
REGISTRATION NUMBER: 33
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: FILING DATE: 23-MAI CLASSIFICATION: 43
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                                                                                              FILING DATE:
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                     ZIP: 94306
                                                                                                                                                                                                                                                                                 COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      60 LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK 94
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         81.9%; Score 181; DB 1; ilarity 100.0%; Pred. No. 7.2e-17; Conservative 0; Mismatches 0;
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                           8600-0152
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MOLECULE TYPE: Depti
, IMMEDIATE SOURCE:
, LIBRARY: GENBANK
, CLONE: GI 433075
US-08-621-018B-10
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US-08-621-018B-10
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                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: FASTSEQ Version 1.5
SOFTWARE: TASTSEQ Version 1.5
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/621,018B
FILING DATE: March 22, 1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/409,373
FILING DATE: March 23, 1995
FILING DATE: March 23, 1995
ATTORNEY/AGENT INFORMATION:
REGISTRATION NUMBER: 09.302
REGISTRATION NUMBER: 39,132
REFERENCE/DOCKET NUMBER: PF-0029-1 C:
TELECOMMUNICATION INFORMATION:
TELEPHONE: 650-855-0555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 10, Application US/08621018B Patent No. 6060239
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                                                            Matches
                                                                            Query Match
Best Local
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INFORMATION FOR SEQ ID NO: 11
SEQUENCE CHARACTERISTICS:
LENCTH: 116 amino acids
TYPE: amino acids
                                                                                                                                                                                                                                                                              TELEPAX: 650-845-4166
INFORMATION FOR SEQ ID NO: 10:
SEQUENCE CHARACTERISTICS:
LENGTH: 116 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Stuart, Susan G.
APPLICANT: Hawkins, Phillip R.
APPLICANT: Seilhamer, Jeffrey J.
APPLICANT: Murry, Lynn E.
TITLE OF INVENTION: CELLUBREVIN HOMOLOGS
NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ZIP: 94304
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOLECULE TYPE: protein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: 15" DOS
OPERATING SYSTEM: DOS
OPERATING SYSTEM: DATA:
OPERATING AND DATA:
OPERATION DATA:
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CITY: Palo Alto
STATE: CA
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                                                          1 Similarity
35; Conserv
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4 LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK 38
                                                                                                                                                                                                                                                                    amino acid
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                                                        81.9%; Score 181; DB 3;
ilarity 100.0%; Pred. No. 7.2e-177
Conservative 0; Mismatches 0)
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LSELDDRADALQAGASQFETSAAKLKRKYWWKNIK 94

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Sequence 10, Application US/09483665
Patent No. 6534275
GENERAL INFORMATION:
APPLICANT: Schart, Susan G.
APPLICANT: Hawkins, Phillip R.
APPLICANT: Seilhamer, Jeffrey J.
APPLICANT: Murry, Lynn E.
TITLE OF INVENTION: CELLUBREVIN HO
                                                                                                                                                                                                                                                                   RESULT 12
US-09-483-665-10
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STRANDEDNESS: not rel
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
US-08-819-286-2
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APPLICANT: MOULA,
TITLE OF INVENTION: PEPTIDE ....
TITLE OF INVENTION: NEUROTRANSMITTER S.
TUMBER OF SEQUENCES: 29
CORRESPONDENCE ADDRESS:
CORRESPONDENCE ADDRESS:
SUPPRESSEE: Fish & Richardson P.C.
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Best Local
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INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Taylor, Stacy L.
REGISTRATION NUMBER: 34,842
REFERENCE/DOCKET NUMBER: 07:
TELECOMMUNICATION INFORMATION:
TELEPHONE: 619/678-5070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STREET: 422
STREET: 420
CITY: La Jolla
STATE: CA
STATEY: USA
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC COMPATIBLE
COPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US 6
FILING DATE: 18-MAR-1996
ATTORNEY/AGENT INFORMATION:
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PRIOR APPLICATION DATA:
                                                                                     CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/819,286 FILING DATE:
                                                    STREET:
                                                                    ADDRESSEE:
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STREET: 4225 Executive Square, Suite 1400
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5. 6169074
Palo Alto
E: CA
TRY: U.S.
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                                                   Incyte Pharmaceuticals, Inc
74 Porter Drive
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N: PEPTIDE INHIBITORS OF
N: NEUROTRANSMITTER SECRETION BY NEURONAL CELLS
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100.0%; Pr
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                                                              Matches
                                                                            Query Match
Best Local Similarity
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                            MOLECULE TYPE: pept
IMMEDIATE SOURCE:
LIBRARY: GENBANK
CLONE: GI 433075
                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: March 23, 1
ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION DATA:
APPLICATION NUMBER: US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ZIP: 94304
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ Version 1.5
                                                                                                                                                                                                                                                                                                        REGISTRATION NUMBER: 33,302
REFERENCE/DOCKET NUMBER: PFI
SLECOMMUNICATION INFORMATION:
TELEPHONE: 650-85-0555
TELEFEX: 650-849-8886
                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: 08/621, ULU
APPLICATION NUMBER: 08/62, 1996
APPLICATION NUMBER: 08/409,373
APPLICATION NUMBER: 08/409,373
                                                                                                                                                                                                          STRANDEDNESS: Sir
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                           NAME: Hamlet-Cox, Diana
                                                                                                                                                                                                                                                           ENGTH:
60
                                                                                                                                                                                                                                         amino acid
LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK 94
                           LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK 38
                                                            Conservative
                                                                                                                                                                                           peptide
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                                                                                                                                                                                                                        single
                                                                             81.9%; Score 181; DB 4; 100.0%; Pred. No. 7.2e-17;
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ER: PF-0029-2
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                                                                                           Length 116;
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                                                            Gaps
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US-08-621-018B-11 RESULT 13 Sequence 11, Patent No. 6 GENERAL INFORMATION: APPLICATION NUMBER: US/08/621,018B FILING DATE: March 22, 1996 PRIOR APPLICATION DATA: APPLICANT: Stuart, Susan G.
APPLICANT: Hawkins, Phillip R.
APPLICANT: Seilhamer, Jeffrey J.
APPLICANT: Murry, Lynn E.
TITLE OF INVENTION: CELLUBREVIN I
NUMBER OF SEQUENCES: 51 SOFTWARE: FastSEQ Version 1.5 CURRENT APPLICATION DATA: COMPUTER READABLE FORM: MEDIUM TYPE: Diskett APPLICATION NUMBER: 08/4 FILING DATE: March 23, 1 ATTORNEY/AGENT INFORMATION: CORRESPONDENCE ADDRESS CITY: Palo Alto STATE: CA COUNTRY: U.S. COMPUTER: IBM Con
OPERATING SYSTEM: COUNTRY: UZIF: 94304 STREET: ADDRESSEE: Application US/08621018B E: Incyte Pharmaceuticals, Inc 3174 Porter Drive IBM Compatible SYSTEM: DOS Diskette CELLUBREVIN HOMOLOGS 08/409,373 23, 1995

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                                                                                                                                                                                                SOFTWARE: FASTERQ Version 1.5
CURRENT APPLICATION DATA:
APPLICATION UNMBER: US/09/483,665
FILING DATE: Herewith
PRIOR APPLICATION DATA:
APPLICATION UNWBER: 08/621,018
FILING DATE: March 22, 1996
APPLICATION NUMBER: 08/409,373
FILING DATE: March 23, 1995
ATTORNEY/AGENT INFORMATION:
NAME: Hamlet-Cox, Diana
REGISTRATION NUMBER: 33,302
REFERENCE/DOCKET NUMBER: PF-0029-2 I
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                                                                            TELEFAX: 650-849-8886
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 82 amino acids
TYPE: amino acid
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APPLICANT: Stuart, Susan G.

APPLICANT: Hawkins, Phillip R.

APPLICANT: Seilhamer, Jeffrey J.

APPLICANT: Murry, Lynn E.

TITLE OF INVENTION: CELLUBREVIN
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
              MOLECULE TYPE: peptide IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM: MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IMMEDIATE SOURCE:
LIBRARY: GENBANK
CLONE: GI 606978
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TELECOMMUNICATION INFORMATION:
TELEPHONE: 650-855-0555
                                                                                                                                                                   TELECOMMUNICATION INFORMATION: TELEPHONE: 650-855-0555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY: 1: MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                        OPERATING SYSTEM:
SOFTWARE: FastSEQ
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                                                 TOPOLOGY:
                                                                STRANDEDNESS:
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STRANDEDNESS: sir
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      34;
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nilarity 97.1%;
Conservative
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linear
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GENBANK
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SYSTEM: DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           Diskette
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                                                              single
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    Mismatches

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; CLONE: GI 606978
US-09-483-665-11
                                                                                                                                                                                                                         TELEFAX: 202-371-2543
INFORMATION FOR SEQ ID NO: 9
SEQUENCE CHARACTERISTICS:
LENGTH: 35 amino acids
TYPE: amino acid
STRANDEDNESS: single
                                                                                   Matches
                                                                                                     Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
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APPLICANT: Shone,
                                                                                                                                                                                  TOPOLOGY: linear MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                     NAME: ESMOND, ROBERT W.
REGISTRATION NUMBER: 32,893
REFERENCE/DOCKET NUMBER: 15
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-2600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT AFFICATION NUMBER: US/08/760,000
APPLICATION DATE: Herewith
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: PCT/GB95/01279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ZIP: 20005-3934

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIA Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: PCT/
FILING DATE: 02-JUN-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Hallis, Bassam
APPLICANT: James, Benjamin A. F.
APPLICANT: Quinn, Conrad P.
TITLE OF INVENTION: TOXIN ASSAY
NUMBER OF SEQUENCES: 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STREET: LIVE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADDRESSIE: Sterne, Kessler, Goldstein & Fox, P.L.L.C. STREET: 1100 New York Ave., N.W., Suite 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Match 81.0%; Score 179; DB 4; Local Similarity 97.1%; Pred. No. 9.1e-17;
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                                                                               ch 80.1%; Score 177; DB 2; 1 Similarity 97.1%; Pred. No. 6.6e-17; 34; Conservative 1; Mismatches 0
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                                        4 LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK 38
LSELDDRADALQAGASQFESSAAKLKRKYWWKNLK 35
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    Mismatches

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Search completed: November Job time : 29.125 secs

1, 2004, 18:19:42

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Result
No.
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                                                                                                                                                                                                                                                                                                                       Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB
BG
   protein search, using
                                                                                                                                                                                                                                                                                                                                                                                   Published Applications AA:*

1: /cgn2=6/ptodata/2/pubpaa/US07_PUBCOMB.pep:*

2: /cgn2-6/ptodata/2/pubpaa/DS06_NEW_PUB.pep:*

3: /cgn2-6/ptodata/2/pubpaa/US06_NEW_PUB.pep:*

4: /cgn2-6/ptodata/2/pubpaa/US06_PUBCOMB.pep:*

5: /cgn2-6/ptodata/2/pubpaa/US07_NEW_PUB.pep:*

6: /cgn2-6/ptodata/2/pubpaa/US08_NEW_PUB.pep:*

7: /cgn2-6/ptodata/2/pubpaa/US08_NEW_PUB.pep:*

9: /cgn2-6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*

9: /cgn2-6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*

10: /cgn2-6/ptodata/2/pubpaa/US09_PUBCOMB.pep:*

11: /cgn2-6/ptodata/2/pubpaa/US09_PUBCOMB.pep:*

12: /cgn2-6/ptodata/2/pubpaa/US09_PUBCOMB.pep:*

13: /cgn2-6/ptodata/2/pubpaa/US09_NEW_PUB.pep:*

14: /cgn2-6/ptodata/2/pubpaa/US10_PUBCOMB.pep:*

15: /cgn2-6/ptodata/2/pubpaa/US10_PUBCOMB.pep:*

16: /cgn2-6/ptodata/2/pubpaa/US10_PUBCOMB.pep:*

16: /cgn2-6/ptodata/2/pubpaa/US10_PUBCOMB.pep:*

18: /cgn2-6/ptodata/2/pubpaa/US10_PUBCOMB.pep:*

19: /cgn2-6/ptodata/2/pubpaa/US10_PUBCOMB.pep:*

19: /cgn2-6/ptodata/2/pubpaa/US10_PUB.pep:*

10: /cgn2-6/ptodata/2/pubpaa/US10_PUB.pep:*

10: /cgn2-6/ptodata/2/pubpaa/US10_PUB.pep:*

10: /cgn2-6/ptodata/2/pubpaa/US10_PUB.pep:*

10: /cgn2-6/ptodata/2/pubpaa/US10_PUB.pep:*

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length:
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221
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164.308 Million cell updates/sec
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Maximum Match 100%
Listing first 45 s
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   US-09-962-360B-9
US-09-942-024-17
US-09-942-024-18
US-09-942-028-18
US-09-942-098-18
US-09-942-098-18
US-09-942-098-18
US-09-942-098-11
US-10-261-161-12
US-10-261-161-12
US-10-261-161-13
US-09-933-670-55
US-10-357-028-11
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-09-942-098-	-09-942-024-2	-10-261-161-9	US-10-261-161-82	-09-942-098-6	-09-942-098-5	-09-942-024-6	-09-942-024-5	-10-369-493-6	-10-261-161-8	-10-261-161-8	-10-261-161-8	-09-942-098-6	-09-942-098-6	-09-942-098-5	-09-942-024-6	-09-942-024-6	-09-942-024-5	-09-962-360B-	-09-962-360B-	-10-261-161-1	-09-942-098-9	-09-942-024-9	-10-467-595-2	-09-293-670-5	-10-100-957A-3	-10-100-957A-	-10-357-028-	-10-357-02	-10-261-161-1	-09-942-098-	-09-942-024-1
equence 20, App	equence 20, App	equence 90, App	quence 82,	equence 65, App	equence 57, App	equence 65, App	equence 57, App	equence 6364, A	equence 86, App	equence 85, App	equence 83, App	equence 61, App	equence 60, App	equence 58, App	equence 61, App	equence 60, App	equence 58, App	equence 3, Appl	equence 4, Appl	equence 10, App	equence 96,	equence 96,	equence 27,	equence 52, App	equence 30,	equence 28, App	equence 9, Appl	equence 6,	equence 14, App	equence 19, App	equence 19,

ALIGNMENTS

RESULT 1 US-09-962-360B-9

Sequence 9, Application US/09962360B Publication No. US20030077685A1 GENERAL INFORMATION:

```
APPLICANT: Schmidt, James J.
APPLICANT: Stafford, Robert G.
APPLICANT: Stafford, Robert G.
TITLE OF INVENTION: High Throughput Assays for ITITLE OF INVENTION: Neurotoxins
FILE REFERENCE: 003/224/SAP
CURRENT APPLICATION NUMBER: US/09/962,360B
CURRENT FILING DATE: 2002-08-19
PRIOR APPLICATION NUMBER: US 60/235,050
PRIOR APPLICATION NUMBER: US 60/235,050
PRIOR FILING DATE: 2001-09-25
NUMBER OF SEQ ID NOS: 12
SOFTWARE: APPLE Macintosh Microsoft Word 6.0
SEQ ID NO 9
LENGTH: 42
TYPE: PRI
ORGANISM: Artificial sequence
FEBRIURE: APPLICATION CONTACT OF THE PRI
ORGANISM: Artificial sequence
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                                                                                  Query Match
Best Local Similarity
Matches 41; Conserv
                                                                                                                                                                                             FEATURE:
NAME/KEY: misc_feature
LOCATION: 1
OTHER INFORMATION: Xaa at 1 is N-fluresceinyl-glycine
                                                                                                                                                                                                                                                                                     OTHER INFORMATION: synthetic peptide chosen such that it is cleaved by BONT
N
                            2 GGLSELDDRADALQAGASQFETSAAKLKRKYWWKNLKGGGC
GGLSELDDRADALQAGASQFETSAAKLKRKYWWKNLKGGGC
                                                                                  99.5%;
ilarity 100.0%;
Conservative
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                                                                                     Score 220; DB 1
Pred. No. 9.3e-
0; Mismatches
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                                                                                                                               DB 10;
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                                                                                       Indels
42
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-942-024-17; Sequence 17, Application US/09942024; Publication No. US20030143650A1
                                                                                                                                                                    RESULT 4
US-09-942-024-18
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Publication No. US20030143650A1
GENERAL INFORMATION:
APPLICANT: Steward, Lance E.
APPLICANT: Fernandez-Salas, Ester
APPLICANT: Acki, Kei Roger
TITLE OF INVENTION: Fret Protease Assays For Botulinum
TITLE OF INVENTION: Serotype A/E Toxins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION NUMBER: US/09/942,024
CURRENT FILING DATE: 2001-08-28
NUMBER OF SEQ ID NOS: 96
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQ ID NOS: 96
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
APPLICANT: Steward, Lance E.
APPLICANT: Fernandez-Salas,
APPLICANT: Aoki, Kei Roger
                                                                                                           Sequence 18, Application US/09942024 Publication No. US20030143650A1 GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local
                                                                                                                                                                                                                                                                                                                       Matches
APPLICANT: Steward, Lance E.
APPLICANT: Fernandez-Salas, Ester
APPLICANT: Fernandez-Salas, Ester
APPLICANT: Aoki, Kei Roger
TITLE OF INVENTION: Fret Protease Assays For Botulinum
TITLE OF INVENTION: Serotype A/E Toxins
FILE REFERENCE: P-AR 4803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT FILING DATE: 2001-08-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: Fret Protease Assays For Botulinum TITLE OF INVENTION: Serotype A/E Toxins FILE REFERENCE: P-AR 4803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     09-942-024-4
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TYPE: PRT
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es 35; Conserv
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Pred. No. 4e-16;
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APPLICANT: Steward, Lance E.
APPLICANT: Fernandez-Salas, Ester
APPLICANT: Fernandez-Salas, Ester
APPLICANT: Aoki, Kei Roger
ITILE OF INVENTION: Fret Protease Assays For
ITILE OF INVENTION: Toxins
FILE REFERENCE: P-AR 4802
CURRENT APPLICATION NUMBER: US/09/942,098
CURRENT FILING DATE: 2001-08-28
NUMBER OF SEQ ID NOS: 96
SOFTMARE: FastSEQ for Windows Version 4.0
SSECTION 0.17
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US-09-942-024-18
                                                                          ; ORGANISM: Mus musculus US-09-942-098-17
                                                                                                                                                                                                                                                                                                                                                   US-09-942-098-17
Sequence 17, Application US/09942098
Sequence 17, O. US20030143651A1
DESCRIPTION:
GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; ORGANISM: Homo sapiens US-09-942-098-4
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US-09-942-098-4
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CURRENT FILING DATE: 2001-08-28
NUMBER OF SEQ ID NOS: 96
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 18
LENGTH: 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/09/942,098
CURRENT FILING DATE: 2001-08-28
NUMBER OF SEQ ID NOS: 96
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 4, Application US/09942098 Publication No. US20030143651A1 GENERAL INFORMATION:
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Best Local Similarity
Matches 35; Conserv
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APPLICANT: Aoki, Kei Roger
TITLE OF INVENTION: Fret Protease Assays For Clostridial
TITLE OF INVENTION: Toxins
FILE REFERENCE: P-AR 4802
 Matches
                                     Query Match
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TYPE: PRT
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                                                                                                                                LENGTH: 116
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Local Similarity
nes 35; Conserv
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1 Similarity 100.0%;
35; Conservative (
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   Conservative
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100.0%; Pred. No.
 81.9%; Score 181; DB 10; Length 116; 100.0%; Pred. No. 4e-16; Indels
                                                                                                                                                                                                                                                                               Protease Assays For Clostridial
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Pred. No. 4e-16;
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4e-16;
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US-10-357-028-10
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SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 18
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Best Local :
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APPLICANT: Aoki, Kei Roger
TITLE OF INVENTION: Fret Protease Assays For Clostridial
TITLE OF INVENTION: Toxins
FILE REFERENCE: P-AR 4802
CURRENT APPLICATION NUMBER: US/09/942,098
CURRENT FILING DATE: 2001-08-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Steward, Lance E. APPLICANT: Fernandez-Salas,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH:
TYPE: PR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
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                                                  APPLICATION NUMBER: US/09/483,665
FILING DATE: Herewith
APPLICATION NUMBER: 08/621,018
FILING DATE: March 22, 1996
APPLICATION NUMBER: 08/409,373
FILING DATE: March 23, 1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                     CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/10/357,028
FILING DATE: 29-Jan-2003
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ Version 1.5
                                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
ADDRESSEE: Incyte Pharmaceuticals, Inc.
STREET: 3174 Porter Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Stuart, Susan G.
Hawkins, Phillip R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION: CELLUBREVIN HOMOLOGS NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         60 LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK 94
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             NAME: Hamlet-Cox, Diana REGISTRATION NUMBER: 33,302
                                                                                                                                                                                                                                                                                                                                                                     CITY: Palo Alto
STATE: CA
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REFERENCE/DOCKET NUMBER: PF-0029-2 DIV
                                                                                                                                                                                                                                                                                                                                                      COUNTRY:
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to. US20030180931A1
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; CLONE: GI 433075
; SEQUENCE DESCRIPTION: SEQ ID NO: 10:
US-10-357-028-10
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                                                                                                                                                                                                                                                                              US-10-261-161-12
                                                                                                                                                                                                                                                                                                  RESULT 10
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Best Local S
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Publication No. US20040072270A1
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TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                                                                        Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRANDEDNESS: single TOPOLOGY: linear MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      35; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
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60 LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK 94
                4 LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK 38
                                                                 Score 181; DB 14;
Pred. No. 4e-16;
                                                     Mismatches
                                                    0;
                                                                            Length 116;
                                                     Indels
                                                    0
                                                    Gaps
                                                    0
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GENERAL INFORMATION:

APPLICANT: Fernandez-Salas, Ester

APPLICANT: Steward, Lance E.

APPLICANT: Acki, Kei Roger

ITILE OF INVENTION: Cell-Based Fluorescence Resonance Energy

ITILE OF INVENTION: Transfer (FRET) Assays For Clostridial Toxins

FILE REFERENCE: P-AR 4804

CURRENT APPLICATION NUMBER: US/10/261,161

CURRENT FILING DATE: 2002-09-27

NUMBER OF SEQ ID NOS: 109

SOFTWARE: FastSEQ for Windows Version 4.0

SEQ ID NO 11

LENGTH: 116

TYPE: PRT

ORGANISM: Homo sapiens 81.9%; Score 181; DB 15 100.0%; Pred. No. 4e-16; Mismatches DB 15; 0 Length 116; Indels 0 Gaps

0;

Sequence 12, Application US/10261161
Publication No. US20040072270A1
GENERAL INFORMATION:
APPLICANT: Fernandez-Salas, Ester
APPLICANT: Steward, Lance E.
APPLICANT: Steward, Lance E.
APPLICANT: Acki, Kei Roger
TITLE OF INVENTION: Transfer (FRET) Assays For Clostridial Toxi
FILE OF INVENTION: Transfer (FRET) Assays For Clostridial Toxi
FILE REFERENCE: P-AR 4804
CURRENT APPLICATION NUMBER: US/10/261,161
CURRENT FILING DATE: 2002-99-27
NUMBER OF SEO ID NOS: 109
SOFTWARE: FastSEQ for Windows Version 4.0
LENGTH: 116 Toxins

ORGANISM: Mus musculus

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                                                                                                                                                              ; OTHER INFORMATION: Description of Artificial Sequence: synthetic US-09-293-670-55
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US-110-261-161-13
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                                                                       Matches
                                                                                        Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                 SOFTWARE: PatentIn Ver. 2.0 SEQ ID NO 55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Pernandez-Salas, Ester
APPLICANT: Steward, Lance E.
APPLICANT: Steward, Lance E.
APPLICANT: Steward, Lance E.
APPLICANT: Steward, Lance E.
APPLICANT: Acid, Xei Roger
TITLE OF INVENTION: Cell-Based Fluorescence Resonance Energy
TITLE OF INVENTION: Transfer (FRET) Assays For Clostridial Toxins
FILE REFERENCE: P-AR 480.4
CURRENT APPLICATION NUMBER: US/10/261,161
CURRENT FILING DATE: 2002-09-27
NUMBER OF SEQ ID NOS: 109
SOFTWARE: FastSEQ for Windows Version 4.0
SBQ ID NO 13
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                                                                                                                                                                                                                                                                                                                                           APPLICANT: Fisher, Joseph
APPLICANT: Lorens, James
APPLICANT: Lorens, James
APPLICANT: Lorens, James
APPLICANT: Royen, Donald
APPLICANT: Rossi, Alexander
TITLE OF INVENTION: Multiparameter Facs Assays to Detect Alterations in
TITLE OF INVENTION: Cellular Parameters and to Screen Small Molecule
TITLE OF INVENTION: Libraries
TITLE REFERENCE: A68104/DJB/RMS/DAV
CURRENT APPLICATION NUMBER: US/09/293,670
CURRENT FILING DATE: 1999-04-16
NUMBER OF SEQ ID NOS: 57
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                                                                                                                                                                                                                              TYPE: PRT
ORGANISM: Artificial Sequence
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                                                                                                                                                                                                                                                                               LENGTH: 607
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                                                                       35;
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4 LSELDDRADALQAGASQFETSAAKLKRKYWWKNIK 38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4 LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK 38
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                     111arity 100.0%; so Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      81.9%; Sc
ilarity 100.0%; F
Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               81.9%; Score 181; DB 15; Length 116; ilarity 100.0%; Pred. No. 4e-16; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 181; DB 15;
; Pred. No. 4e-16;
0; Mismatches 0;
                                                                                        Score 181; DB 10; Pred. No. 2.3e-15;
                                                                     Mismatches
                                                                                                               Length 607;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
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                                                                       Gaps
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; Sequence 19, Application US/09942024
Publication No. US20030143650A1
; GENERAL INFORMATION:
; APPLICANT: Steward, Lance E.
; APPLICANT: Fernandez-Salas, Ester
; APPLICANT: Aoki, Kei Roger
                                                                                                                                  RESULT 14
US-09-942-024-19
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Sequence 11, Application US/10357028
Publication No. US20030180931A1
GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                       Query Match
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TELEPHONE: 650-855-0555
TELEPA: 650-849-8886
INFORMATION FOR SEQ ID NO: 11:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT LIFE: DISNECTE
CONGUTER: IBM COMPATIBLE
COPERATING SYSTEM: DOS
SOFTWARE: FASTSEQ Version 1.5
CURRENT APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: US/09/483,665
FILING DATE: Herewith
APPLICATION NUMBER: 08/621,018
APPLICATION NUMBER: 08/621,018
APPLICATION NUMBER: 08/93,73
FILING DATE: March 22, 1996
APPLICATION NUMBER: 08/99,373
FILING DATE: March 23, 1995
APPLICATION NUMBER: 33,199
APPLICATION NUMBER: 33,302
REGISTRATION NUMBER: 33,302
REGISTRATION NUMBER: 33,302
                                                                                                                                                                                                                                                                                                                                  Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRANDEDNESS: single TOPOLOGY: linear MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
ADDRESSEE: Incyte Pharmaceuticals, Inc.
STREET: 3174 Porter Drive
                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE DESCRIPTION: SEQ ID NO: 11:
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COMPUTER READABLE FORM:
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TITLE OF INVENTION: CELLUBREVIN HOMOLOGS
NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Stuart, Susan G.
Hawkins, Phillip R.
                                                                                                                                                                                                                         26 LSELDDRADALQAGASQFETSAAKLKRKYWWKNMK 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61 LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK 95
                                                                                                                                                                                                                                                4 LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK 38
                                                                                                                                                                                                                                                                                                             34;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 82 amino acids
TYPE: amino acid
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97.1%;
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                                                                                                                                                                                                                                                                                                        Score 179; DB 14,
Pred. No. 5.1e-16;
                                                                                                                                                                                                                                                                                                                                                  Length 82;
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Gaps

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RESULT 15
US-09-942-098-19
Sequence 19, Application US/09942098
Publication No. US20030143651A1
GENERAL INFORMATION:
APPLICANT: Steward, Lance E.
APPLICANT: Fernandez-Salas, Ester
APPLICANT: Fernandez-Salas, Ester
APPLICANT: Fernandez-Salas, Ester
ITITLE OF INVENTION: Fret Protease Assays For Clostridial
ITITLE OF INVENTION: TOXINS
FILE REFERENCE: P-AR 4802
CURRENT APPLICATION NUMBER: US/09/942,098
CURRENT FILING DATE: 2001-08-28
NUMBER OF SEO ID NOS: 96
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 19
LENGTH: 114
TYPE: PRT
ORGANISM: Xenopus laevis
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Search completed: November Job time: 83.875 secs
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                                                                                                                                                                    Query Match 81.0%; Score 179; DB 10; Length 114; Best Local Similarity 97.1%; Pred. No. 7.2e-16; Matches 34; Conservative 1; Mismatches 0; Indels
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                                                                                   58 LSELDDRADALQAGASQFETSAAKLKRKYWWKNMK 92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       58 LSELDDRADALQAGASQFETSAAKLKRKYWWKNMK 92
                                                                                                           4 LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK 38
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                2004, 18:23:48
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence:
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Perfect score:
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     Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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length: 2000000000
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Match
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Gapop 10.0 , Gapext 0.5
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homeotic protein H
probable synaptobr
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synaptobrevin SNB-
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                                                                                                                                                                                                                                                                              synaptobrevin
                                                                                                                                                                                                                                                      homo
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ALIGNMENTS

synaptobrevin 2 - human (,Species: Homo sapiens (man) (,Species: Homo sapiens (man) (,Date: 14-Jun-1991 #sequence_revision 14-Jun-1991 #text_change 09-Jul-2004 (,Accession: B38)15 (,Accher III, B.T.; Oezcelik, T.; Jahn, R.; Francke, U.; Suedhof, T.C. J. Biol. Chem. 265, 17267-17273, 1990 J. Biol. Chem. 265, 17267-17273, 1990 A;Fitle: Structures and chromosomal localizations of two human genes encodir A;Reference number: A38315; MUID:91009161; PMID:1976629 A;Accession: B33115 A;Accession: B3315 A;Cross-references: GDB:125293; OMIM:185881 A;Map position: 17pter-17p12 C;Superfamily: synaptobrevin C;Keywords: membrane trafficking; transmembrane protein RESULT B38315 A;Cross-references: UNIPROT:P19065; GB:M36205; GB:J05611; NID:g338630; PIDN:AAA60604.1; A; Molecule type: DNA A; Residues: 1-116 < ARC> 멍 Ş A; Gene: GDB:SYB2; VAMP-2 Matches Query Match 60 4 LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK Similarity 35; Conserv LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK 94 Conservative 81.9%; Score 181; DB 2; 100.0%; Pred. No. 1.9e-16 tive 0; Mismatches .9e-16; 0 Length 116; Indels genes encoding 0 Gaps 0 synaptobrev

synaptobrevin 2 - bovine
NyAlternate names: SNAP receptor
C;Species: Bos primigenius taurus (cattle)
C;Date: 31-Mar-1990 #sequence revision 31-Mar-1990 #text_change 09-Jul-2004
C;Date: 31-Mar-1990 #sequence revision 31-Mar-1990 #text_change 09-Jul-2004
C;Accession: JN0011; S36811; \$32363
R;Suedhof, T.C.; Baumert, M.; Perin, M.S.; Jahn, R.
Neuron 2, 1475-1481, 1989
Neuron 2, 1475-1481, 1989
A;Title: A synaptic vesicle membrane protein is conserved from mammals to D.
A;Reference number: A93413; MUID:90180466; PMID:2560644
A;Accession: JN0011
A;Accession: JN0011

from mammals to Drosophila

A;Molecule type: mRNA
A;Residues: 1-116 <SUE
A;Cross-references: UNIPROT:P19065; GB:X76199; NID:g433075; PIDN:CAA53792.1; PID:g433076
A;Cross-references: UNIPROT:P19065; GB:X76199; NID:g433075; PIDN:CAA53792.1; PID:g433076
A;Experimental source: brain
R;Horikawa, H.P.M.; Saisu, H.; Ishizuka, T.; Sekine, Y.; Tsugita, A.; Odani, S.; Abe, T.
FEBS Lett. 330, 236-240, 1993
R;Horikawa, F.; Somplex of rabba, SNAP-25, VAMP/synaptobrevin-2 and syntaxins in brain presyn
A;Reference number: S36811; MUID:93374072; PMID:8365494
A;Accession: S36811

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C;Accession: S35077
R;McMahon, H.T.; Ushkaryov, Y.A.; Edelmann, L.; Link, E.; Binz, T.; Niemann Nature 364, 346-349, 1993
A;Title: Cellubrevin is a ubiquitous tetamus-toxin substrate homologous to A;Reference number: S35077; MUID: 93323976; PMID: 8332193
A;Accession: S35077
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S35077
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A;Title: Tetanus and botulinum-B neurotoxins block neurotransmitter release by proteolythic A;Reference number: S27125; MUID:93063293; PMID:1331807
A;Accession: S27125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C;Keywords: acetylated amino end; membrane trafficking; transmembrane F;2-116/Product: synaptobrevin 2 #status predicted <MAT> F;95-114/Domain: transmembrane #status predicted <TMM>
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A;Title: SNAP receptors implicated in vesicle targeting and fusion. A;Reference number: S32360; MUID:93205116; PMID:8455717
A;Accession: S32363
                                                                                                                                                                                                                                                                                                                                        В
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R;Elferink, L.A.; Trimble, W.S.; Scheller, R.H.
J.; Biol. Chem. 264, 11061-11064, 1989
A;Tille: Two vesicle-associated membrane protein genes are
A;Reference number: A34288; MUID:89291844; PMID:2472388
A;Accession: B34288
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A, Residues: 31-47,'X',49-55,'X',57-59,67-82 <50E>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;Molecule type: protein
;Residues: 77-99,'X',101 <SCH>
;Superfamily: synaptobrevin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;Alternate names: vesicle-associated membrane protein;Species: Rattus norvegicus (Norway rat)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;Molecule type: mkNA;Residues: 'X',48-79 <HOR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Molecule type: mRNA;Residues: 1-116 <ELF>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Experimental source: brain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                keywords: membrane protein; membrane trafficking; synaptic vesicle
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Date: 01-Jun-1990 #sequence_revision 01-Jun-1990 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
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35; Conserv
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100.0%;
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Pred. No. 1.9e-16;
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Pred. No. 1.9e-1
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RESULT 7 A32146

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RESULT 6
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S52747
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A;Map position: 12p-12p
C;Superfamily: synaptobrevin
                                                                                                                                                                                                                                                                                                        R;Archer III, B.T.; Oezcelik, T.; Jahn, R.; Francke, U.; Suedhof, T.C. J. Biol. Chem. 265, 17267-17273, 1990
A;Title: Structures and chromosomal localizations of two human genes e A;Reference number: A38315; MUID:91009161; PMID:1976629
A;Accession: A38315
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A;Cross-references: UNIPROT:Q64271;
C;Superfamily: synaptobrevin
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                                                                                                                                                                                                         A;Gene: GDB:SYB1; VAMP-1
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                                                                                                                                                                                                                                                       A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-118 <ARC>
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C;Species: Homo sapiens (man)
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A; Residues: 1-118 <GOU>
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A;Accession: S52747
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C;Date: 19-May-1995 #sequence_revision 21-Jul-1995 #text_change 09-Jul-2004
C;Accession: S52747
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                                                                                    Best
                                                                                                                                   Keywords: membrane trafficking;
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Best Local
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62
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                                                                 . Similarity 33; Conserv
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l Similarity 94.3%;
33; Conservative
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LSELDDRADALQAGASQFESSAAKLKRKYWWKNCK
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                                                                 Conservative
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94.3%;
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                                                                 Score 172; DB
Pred. No. 2.9e
1; Mismatches
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Pred. No. 7.
                                                                                                                                     transmembrane protein
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                                                                                                    DB 2;
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.9e-15;
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vesicle-associated membrane protein 1 - rat
C;Species: Rattus norvegicus (Norway rat)
C;Date: 01-Jun-1990 #sequence_revision 01-Jun-1990 #text_change 09-Jul-2004
C;Accession: A34288
R;Elferink, L.A.; Trimble, W.S.; Scholler ""
J. Biol. Chem"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           vesicle-associated membrane protein 1 - Pacific electric ray C;Species: Torpedo californica (Pacific electric ray) C;Date: 21-May-1990 #sequence_revision 21-May-1990 #text_change 09-Jul-2004 C;Accession: A32146 R;Trimble, W.S.; Cowan, D.M.; Scheller, R.H. Proc. Natl. Acad. Sci. U.S.A. 85, 4538-4542, 1988 Proc. Natl. Acad. Sci. U.S.A. 85, 4538-4542, 1988 A;Reference number: A32146; MUID:88248054; PMID:3380805 A;Accession: A32146; MUID:88248054; PMID:3380805
                                                                                                                                                                                                                                         R;Bommert, K.; Kistner, A.; Hasermann, E.; Betz, H. submitted to the EMBL Data Library, August 1993
A;Description: Conservation of primary structure and clostridial neurotoxin cleavage sin A;Reference number: S40153
A;Accession: S40153
                                                                                                                                                                                                                                                                                                                                                         synaptobrevin - longfin squid
c;Species: Loligo pealeii (longfin squid)
C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 09-Jul-2004
C;Accession: S40153
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A;Title: Two vesicle-associated membrane protein genes are A;Reference number: A34288; MUID:89291844; PMID:2472388
A;Accession: A34288
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A;Residues: 1-120 <TR1>
A;Cross-references: UNIPROT:P13701; EMBL:J03777; NID:g213245; PIDN:AAA49286.1; PID:g2132
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A; Residues: 1-125 < BOM>
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                                                                                                                              C; Superfamily: synaptobrevin
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                                                                  Query Match
Best Local :
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Best Local
                                             Matches
                                                                                                                                                        Cross-references: UNIPROT:P47194; EMBL:X74748; NID:g437855; PIDN:CAA52766.1; PID:g4378
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                                          l Similarity
30; Conserv
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LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK
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                                             Conservative
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85.7%;
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91.4%;
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Pred. No. 2.4e-14;
                                          Score 161; DB 2;
Pred. No. 8.6e-14;
2; Mismatches 3
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Pred. No. 3e-15;
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                vesicle-associated membrane protein 2 - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 10-Dec-1993 #sequence_revision 27-Feb-1997 #text_change 09-Jul-2004
C;Accession: $35554
R;Patarnello, T.; Bargelloni, L.; Rossetto, O.; Schiavo, G.; Montecucco, C.
Rature 364, 581-582, 1993
A;Title: Neurotransmission and secretion.
A;Peference number: $35552; MUID:93354436; PMID:8350916
A;Accession: $35554
A;Accession: $35554
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RESULT 12 S35554

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A; Map position:
A; Introns: 39/3
C; Superfamily: s
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A;Sxperimental source: strar
C;Genetics:
A;Gene: SNB-1; CESP:T10H9.4
. wan nosition: 5
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A;Residues: 1-32 <PAT>
A;Residues: 10-32 <PAT>
A;Cross-references: UNIPROT:Q7LZ64
C;Superfamily: synaptobrevin
C;Keywords: membrane trafficking; transmembrane protein
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A;Accession: T33239
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-109 <GRE>
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A; Accession: $35555
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C;Species: Gallus gallus (chicken)
C;Date: 10-Dec-1993 #sequence_revision 26-Jul-1996 #text_change 09-Jul-2004
C;Accession: S35555
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R;Greco, T.; Bradshaw, H.; O'Brien, D. submitted to the EMBL Data Library, May 1998 A;Description: The sequence of C. elegans cosmid T10H9. A;Reference number: Z21306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          synaptobrevin SNB-1 - Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Date: 29-Oct-1999 #sequence_revision 29-Oct-1999 #text_change 09-Jul-2004
C;Accession: T33239
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Nature 364, 581-582,
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Best Local S
Matches 27
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Best Local Similarity
Matches 30; Conserv
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                                                                          th 57.5%; Score 127; DB 2; Similarity 100.0%; Pred. No. 5.8e-10; 27; Conservative 0; Mismatches 0;
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LSELDDRADALOAGASOFETSAAKLKR 32
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85.7%;
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Pred. No. 1.4e-13;
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A; Molecule type: DNA
A; Residues: 1-32 < PAT>
A; Cross-references: UNIPROT:035619
C; Superfamily: symanthing.
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S35552
유 성
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A;Title: Differential expression of transcripts from syb, a Drosophila melanogaster gene A;Reference number: JC1521; MUID:94010306; PMID:8406010
A;Accession: JC1522
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A,Reference number: S35552; MUID:93354436; PMID:8350916
A,Accession: S35552
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C;Species: Mus musculus (house mouse)
C;Date: 10-Dec-1993 #sequence_revision 27-Feb-1997 #text_change 09-Jul-2004
C;Accession: S35552
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C;Superfamily: synaptobrevin
C;Keywords: membrane protein; synaptic vesicle
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N;Alternate names: vesicle-associated membrane protein B
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Matches
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Date: 10-Mar-1994 #sequence_revision 10-Mar-1994 #text_change 09-Jul-2004;
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;Residues: 1-32 <PAT>
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;Residues: 1-132 <CHI>
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                                                           LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK 38
   LSELGERADQLEQGASQSEQQAGKLKRKQWWANMK 110
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Pred. No. 5.8e-10;
                                                                                                                              Score 119; DB 2;
Pred. No. 2.8e-08;
3; Mismatches 9;
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A;Cross-references: UNIPROT:P18489; GB:L14270; NID:g290281; PIDN:AAA28924.1; PID:g290283 A;Note: the authors translated the codon AAG for residue 101 as Asn and CGC for residue 1 R;Suedhof, T.C.; Baumert, M.; Perin, M.S.; Jahn, R. Neuron 2, 1475-1481, 1989
A;Title: A synaptic vesicle membrane protein is conserved from mammals to Drosophila. A;Reference number: A93413; MUID:90180466; PMID:2560644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C;Accession: JC1521; JN0012
R;Chin, A.C; Burgess, R.W.; Wong, B.R.; Schwarz,
Gene 131, 175-181, 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gene 131, 175-181, 1993
A;Title: Differential expression of transcripts from syb,
A;Reference number: JC1521; MUID:94010306; PMID:8406010
A;Accession: JC1521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           synaptobrevin isoform A - fruit fly (Drosophila melanogaster) N_\ell A lternate\ names:\ vesicle-associated\ membrane\ protein\ A
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JC1521
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C;Date: 10-Mar-1994 #sequence_revision 10-Mar-1994 #text_change 09-Jul-2004
                                                                                                                                                                                                   C;Superfamily: synaptobrevin
C;Keywords: synaptic vesicle; transmembrane protein
F;111-130/Domain: transmembrane #status predicted 
                                                                                                                                                                                                                                                                        A;Cross-references: FlyBase:FBgn0003660
A;Introns: 16/2; 128/1
                                                                                                                                                                                                                                                                                                                               A;Gene: syb
                                                                                                                                                                                                                                                                                                                                                                          A;Accession: JN0012
A;Molecule type: mRNA
A;Molecule type: mRNA
A;Residues: 1-92, F, 94-152 <SUE>
C;Comment: Gene syb comprises five exons.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Molecule type: DNA
A;Residues: 1-152 <CHI>
                                                                                                 Matches
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Best Local Similarity
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LSELGERADQLEQGASQSEQQAGKLKRKQWWANMK 110
                                                  LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK 38
                                                                                                    Conservative
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Pred. No. 3.3e-08;
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Search completed: November 1, 2004, 17:53:52 Job time: 21.75 secs

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Minimum
Maximum
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Perfect score:
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Maximum Match 100%
Listing first 45 summaries
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  Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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221
1 XGGLSELDDRADAL
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Query
Match
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1: uniprot_sprot:*
2: uniprot_trembl:*
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 XGGLSELDDRADALQAGASQ.....TSAAKLKRKYWWKNLKGGGC
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 GenCore
(c) 1993
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Q9BRV4
Q8IVC9
Q6PF3
AAH57587
VAM1_HUMAN
VAM1_MOUSE
BAC37151
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VAM2_XENLA
AAH60344
VAM3_HUMAN
VAM3_MOUSE
AAG42468
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VAM2_HUMAN
VAM2_MOUSE
Q9BUC2
Q9BUC2
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Q35619
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BAC34586
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Q6IQK3
AAH71402
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BAC41125
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- 2004 Compugen
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                          057345 xenopus lae
Q6iqk3 brachydanio
Aah71402 brachydan
O9brv4 homo sapien
Q8iv69 homo sapien
Q6iv63 mus musculu
Aah57587 mus muscu
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Aag42468 mus muscu
Aah60045 mus muscu
Bac34586 mus muscu
Bac34723 mus muscu
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Aah02737 homo sapi
Aah55105 mus muscu
Bac41125 mus muscu
Q9wuw2 rattus norv
Q8chr4 mus musculu
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Q64357 mus mus
Q9buc2 homo sa
Q9n0y0 macaca
Q9n0y0 mis mus
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Aah60344 xenopus l
Q15836 homo sapien
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5 homo sapien
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162	162	165	165	165	167	167	170	170	171	171	171	172	172
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160	118	118	117	116	110	86	119	119	112	110	110	182	120
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Q86fe0 schistosoma				Q8ch14 rattus norv			Aah59687 brachydan	O6pbj3 brachydanio	057432 fugu rubrip	Aah59626 brachydan	Q7szz5 brachydanio	Q9cxx2 mus musculu	P13701 torpedo cal

ALIGNMENTS

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RESULT 1
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On Rossetto O., Mannucci R., Rosenthal W., Svelto M., Valenti G.;
"Functional involvement of VAMP/synaptobrevin-2 in cAMP-stimulated
requaporin 2 translocation in renal collecting duct cells.";
Cell Sci. 115:3667-3674(2002).

MEMI; AF262953; AAN14408.1; -.
MEMI; AF262953; AAN14408.1; -.
MR Interpro; IPRO01388; Synaptobrevin.
Pfam; PF00957; Synaptobrevin; 1.
Pfam; PF00957; Synaptobrevin; 1.
PFANTS; PR00219; SYNAPTOBREVIN; 1.
PROSITE; P800417; SYNAPTOBREVIN; 1.
PROSITE; P85082; VSNAPTOBREVIN; 1.
PROSITE; P85082; VSNAPTOBREVIN; 1.
NON_TER 81 81
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Best Local
QGFB35
QGFB35;
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QGFB35;
QS-JUL-2004 (TrEMBLrel. 27, Created)
QS-JUL-2004 (TrEMBLrel. 27, Last sequence update)
QS-JUL-2004 (TrEMBLrel. 27, Last annotation update)
QS-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Hypothetical protein MGC75977.
Name=MGC75977;
Name=MGC75977;
Name=MGC75977;
Name-MGC75977;
Namphibia: Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Amphibia: Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
Xenopodinae; Xenopus.
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Oryctolagus cuniculus (Rabbit).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus.
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01-MAR-2003 (TrEMBLrel. 23,
01-MAR-2003 (TrEMBLrel. 23,
01-OCT-2003 (TrEMBLrel. 25,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
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PubMed=12186952;
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35; Conserv
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81 AA;
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Last sequence update)
Last annotation update)
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RX MEDLINEZ238257; PubMed=12477932;
RX MEDLINEZ238257; PubMed=12477932;
RX MEDLINEZ238257; PubMed=12477932;
RX MEDLINEZ238257; PubMed=12477932;
RX MISCHIEZ238257; PubMed=1247
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Best Local S
Matches 35
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Submitted (NOV-2003) to the EMEL/GenB Submitted (NOV-2003) to the EMEL/GenB EMEL; BC061396, AAH61396.1; ...
InterPro; IPR001388; Synaptobrevin. Pfam; PF00957; Synaptobrevin; 1.
PRNOTS; PR00219; SYNAPTOBREVIN; 1.
PRODOM; PD001229; Synaptobrevin; 1.
PROSITE; PS00417; SYNAPTOBREVIN; 1.
PROSITE; PS00892; YSNAPE; 1.
                      MEDITINE-2388257; PubMed=12477932;

Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,

Strausberg R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.

Rlausner R.D., Collins F.S., Wagner L., Schaefer C.F., Bhat N.K.

Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.

Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz
                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae; Xenopodinae; Xenopus; Silurana.
                                                                                                                                                                                                                                                                                                                                                                                                    25-MAR-2004 (TrEMBLrel. 27, Created)
25-MAR-2004 (TrEMBLrel. 27, Last sequence up
25-MAR-2004 (TrEMBLrel. 27, Last annotation
25-MAR-2004 (TrEMBLrel. 27, Last annotation
Hypothetical protein MGC75977.
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"Generation and initial analysis
and mouse cDNA sequences ",
Proc. Natl. Acad. Sci. U.S.A. 99;
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25-MAR-2004
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l Similarity 100.0%;
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Pred. No.
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RESULT 4
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Matches 35
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Hypothetical
SEQUENCE 11
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Krzywinski M.I., — Krzywinski M.A.;
Jones S.J., Marra M.A.;
"Generation and initial analysis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VAM2 HU
                                                                                           SPECIBS=Human; TISSUE=Blood; Taruscio D., Zoraqi K.G., Fa Taruscio structure of human submitted (MAR-1999) to the
                                                                                                                              SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
TISSUE=Blood;
                                                                                                                                                                          SPECIES=Human; TISSUE=Peripheral blood; Nabokina S.M., Lazo P.A., Mollinedo F.; Wabokina of VaMp genes in human neut submitted (MAR-1998) to the EMBL/GenBan
                                                                                                                                                                                                                                                           MEDIINE=91009161; PubMed=1976629;
Archer B.T. III, Oezcelik T., Jahn R., From Structures and chromosomal localizations synaptobrevins 1 and 2.";
J. Biol. Chem. 265:17267-17273(1990).
                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Klein S., Strausberg R.; submitted (NOV-2003) to the EMBL; BC061396; AAH61396.1;
        SPECIES=Bovine;
MEDLINE=90180466; PubMed=2560644;
Suedhof T.C., Baumert M., Perin M.S.,
"A synaptic vesicle membrane protein
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01-NOV-1997
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an SYB2 gene.";
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PIR; B38315; B38315
PIR; JN0011; JN0011.
PDB; 1F83; X-rav
                                                                                                                                MEDLINE=96332494; PubMed=8760387;
Jagadish M.N., Fernandez C.S., Hewish D
Grusovin J., Verkuylen A., Cosgrove L.,
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or send a
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                                                                                                                                                                                                                                            the European Bioinformatics Institute. The use by non-profit institutions as long modified and this statement is not removed. entities requires a license agreement (See
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"Cocrystal structure of synaptobrevin-II bound
                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=20392548;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SPECIES=Human;
MEDLINE=95137000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Insulin-responsive tissues contain the core complex protein SNAP-(synaptosomal-associated protein 25) A and B isoforms in addition syntaxin 4 and synaptobrevins 1 and 2.";
Biochem. J. 317:945-954(1996).
InterPro; IPR001388; Synaptobrevin.
Pfam; PF00957; Synaptobrevin; 1.
PRINTS; PR00219; SYNAPTOBREVN.
PRODOm; PD001229; SYNAPTOBREVIN; 1.
PROSITE; PS00417; SYNAPTOBREVIN; 1.
PROSITE; PS50892; V_SNARE; 1.
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                                                                 GO; GO:0005887;
                                                                                                                                                                                                                                                                                                                         TISSUE SPECIFICITY: Nervous system and skeletal muscle. SIMILARITY: Belongs to the synaptobrevin family. SIMILARITY: Contains 1 v-SNARE coiled-coil homology domain.
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w; HGNC:12643; VAMP2.
185881; -.
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les to their target membrane.
IT: Interacts with VAPA and VAPB.
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., Alafaci A., I
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Multigene fami
INIT_MET
DOMAIN
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01-OCT-2004 (Rel. 45, Last annotation update)
Vesicle-associated membrane protein 2 (VAMP-2)
Name=Vamp2; Synonyms=Syb2;
Mus musculus (Mouse), and
Partie promotion (Total Control 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata;
Mammalia; Butheria; Rodentia;
MCBI TaxID=10090, 10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-NOV-1997 (Rel. 35,
01-NOV-1997 (Rel. 35,
01-OCT-2004 (Rel. 45,
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01-NOV-1997
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDIINE=98104125; PubMed=9430681;
Martin L.B., Shewan A., Millar C.A.,
"Vesicle-associated membrane protein
insulin-dependent trafficking of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               expressed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDIINE=89291844; PubMed=2472388;
Elferink L.A., Trimble W.S., Scheller R.H.;
"Two vesicle-associated membrane protein genes
expressed in the rat central nervous system.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Rattus norvegicus (Rat)
                                                                                                                                                                                                                                                                                                                                                                                            MEDIINE=98430524; PubMed=9759724; DOI=10.1038/26412;
Sutton R.B., Fasshauer D., Jahn R., Brunger A.T.;
"Crystal structure of a SNARE complex involved in sy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
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                           X-RAY CRYSTALLOGRAPHY
AND SNAP25.
                                                                                                                                                      Chen X., Tomca
Suedhof T.C.,
                                                                                                                                                                                                                                                                                                                                                              Sutton R.B., Fasshauer D., Jal
"Crystal structure of a SNARE
at 2.4 A resolution.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               insulin-dependent trafficking GLUT4 in 3T3-L1 adipocytes.";
  AND SNAP25.
SPECIES=Rat;
                                                                                                                                                                                                             MEDLINE=21822661;
                                                                                                                                                                                                                                      SPECIES=Rat;
                                                                                                                                                                                                                                                              X-RAY CRYSTALLOGRAPHY CPLX1 AND SNAP25, AND
                                                                                                                                                                                                                                                                                                                                        Nature
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     K-RAY CRYSTALLOGRAPHY
                                                                                                                                Suedhof T.C., Rizo J.; "Three-dimensional structure
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ហ
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115
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                                                                                                                                                                                  D.R.,
                                                                                                                                                                                                             PubMed=11832227;
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v-SNARE coiled-coil
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                                                                                                                                   complexin/SNARE
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2 plays a specific role in the
facilitative glucose transporter
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Best Local Similarity
Matches 35; Conserv
                                                        01-JUN-2001
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01-OCT-2004
                                                                                          Q9BUC2;
                                                                                                                                                                                                                                                           VARIANT
HELIX
SEQUENCE
                                 Name=VAMP2
                                                                                                                                                                                                                                                                                            MOD_RES
DOMAIN
VARIANT
                                                                                                                                                                                                                                                                                                                                                                  Polymorph
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; M24105; AAA42321.1; -. EMBL; U60150; AAB03463.1; -. PIR; B34288; B34288.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=22499607; PubMed=12496247; DOI=10.1074/jbc.M211889200; Ernst J.A., Brunger A.T.; Brunger b.T.; "High resolution structure, stability, and synaptotagmin binditruncated neuronal SNARE complex.";
           Eukaryota; Metazoa;
                      Homo sapiens
                                             Vesicle-associated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         J. Biol. Chem. 278:8630-8636(2003).
                                                                                                                                                                                                                                                                                                                                 DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                Prodom; PD001229; Synaptobrevin; PROSITE; PS00417; SYNAPTOBREVIN; PROSITE; PS50892; V_SNARE; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            entities requires a license agreement (Some send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -!- SIMILARITY: Belongs to the synaptobrevin family.-!- SIMILARITY: Contains 1 v-SNARE coiled-coil homology domain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                complex binds to CPLX1.
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SNARE cor
                                                                                                                                                                                                                                                                                                                                                       TRANSMEM
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       between
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          InterPro; IPR001388; Synaptobrevin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             H34288; B34288.

1 KKI; X-ray; A=26-91.

1 NYS; X-ray; A=26-88.

1 ISFC; X-ray; A/E/I=1-95.

1 MGI:1313277; Vamp2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         vesicles.
TISSUE SPECIFICITY: Nervous system specific. A higher level expression is seen in the brain as compared to the spinal c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   expression is seen SIMILARITY: Belongs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     vesicles to their target membrane.
SUBUNIT: Interacts with VAPA and VAPB
SNARE core complex containing SNAP25,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SWISS-PROT entry is copyright. It is produced through een the Swiss Institute of Bioinformatics and the E
                                                                                                                                                                                                                                                                                                                                                                                                                                                 PF00957; Synaptobrevin; S; PR00219; SYNAPTOBREVN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3949;
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                                                                                                                                                                              LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK
                                                                                                                                                                LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK
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111
28
115
                                                        (TrEMBLrel. 17, (TrEMBLrel. 17, (TrEMBLrel. 28,
                                                                                                                                                                                                            81.9%;
larity 100.0%;
Conservative
                                                                                                      PRELIMINARY;
                       (Human)
                                                                                                                                                                                                                                                                                                                                                                             1892; V SNARE; 1.
AcetyTation; Coiled coil; Multigene family;
Synapse; Synaptosome; Transmembrane
                                                                                                                                                                                                                                                            AA;
                                                                                                                                                                                                                                                                      1
90
110
111
87
                                             membrane
                                                                                                                                                                                                                                                                                                                                115
                                                                                                                                                                                                                                                                                                                                                      113
                                                                                                                                                                                                                                                                                                                                                                93
           Chordata;
                                                                                                                                                                                                                                                             12559
                                                                                                                                                                                                                                                                                                                                                  Synaptosome; Transmemb
By similarity.
Cytoplasmic (Pot
Anchor for type
                                                                                                                                                                                                                                                            MW,
                                           Created)
Last sequence update)
Last annotation update)
protein 2 (Synaptobrevi
                                                                                                                                                                                                             0
                                                                                                                                                                                                                         Score 181;
Pred. No.
                                                                                                                                                                                                                                                                                  N-acetylserine (By similarity)
v-SNARE coiled-coil homology.
I -> II.
V -> I.
                                                                                                                                                                                                                                                                                                                                (Potential).
Vesicular (Potential)
            Craniata;
                                                                                                        PRT;
                                                                                                                                                                                                                                                            EA400D6291ABF0BC CRC64;
                                                                                                                                                                                                             Mismatches
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                                                                                                      116
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                                             (Synaptobrevin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            and synaptotagmin binding
                                                                                                                                                                                                                    7.8e-16;
            Vertebrata;
                                                                                                      A
                                                                                                                                                                                                                                     DB 1;
                                                                                                                                                                                                                                                                                                                                                                   (Potential)
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                                                                                                                                                                93
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                                                                                                                                                                                                                                                                                                                                                       IV membrane
                                                                                                                                                                                                             0
                                                                                                                                                                                                                                    Length 115;
                                                                                                                                                                                                               Indels
            Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Neuronal synaptic
                                             2)
                                                                                                                                                                                                                                                                                                                                                       protein
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RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Altschul S.F., Jordan H., Moore T., Max S.I., Wang J., Hsleh F.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsleh F.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Stapleton M., J., Utdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Aramastein M.J., Utdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Wilting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
Xrzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
Xrzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
Xrzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local S
Matches 35
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NCBI_TaxID=9606;
[1]
SEQUENCE FROM N.A.
                                                                                                                   Q9NOYO;
01-OCT-2000
01-OCT-2000
01-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROSITE;
PROSITE;
SEQUENCE
                Macaca mulatta (Rhesus macaque)
Eukaryota; Metazoa; Chordata; C
Mammalia; Eutheria; Primates; C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Submitted (JUL-2002) to the EMBL; BC002737; AAH02737.3; EMBL; BC019608; AAH19608.1; EMBL; BC033870, AAH33870.1;
Mammalia;
                                                                                                VAMP-2.
                                                                                                                                                                                                                           Q9NOY0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pfam; PF00957; Synaptobrevin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HSSP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Strausberg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Jones S.J., Marra M.A.; "Generation and initial analysis of and mouse cDNA sequences.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Strausberg R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Submitted
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nterPro; IPR001388; Synaptobrevin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ISSUE=Brain;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PD001229; Synaptobrevin; pS00417; SYNAPTOBREVIN; pS50892; V_SNARE; 1. E 116 AA; 12663 MW; 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PR00219; SYNAPTOBREVN.
                                                                                                                                                                                                                                                                                                                                                                                          LSELDDRADALQAGASQFETSAAKLKRKYWWKNLK
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(DEC-2001)
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                                                                                                                   (TrEMBLrel. (TrEMBLrel. (TrEMBLrel.
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Lung,
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100.0%; Pr
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                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 181; DE
; Pred. No. 7.8
0; Mismatches
                                                                                                                      Last sequence update)
Last annotation updat
                                                                                                                                                                          Created)
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                   Craniata; V
Catarrhini;
                                                                                                                                                                                                                           PRT;
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                                                                                                                                                                                                                           116
                                           Vertebrata;
                                                                                                                                                                                                                           A
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                                                                                                                        update)
                                                                                                                                                                                                                                                                                                                                                                                                           38
                                                                                                                                                                                                                                                                                                                                                            94
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                                           Euteleostomi;
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                                                                                                                                      Query Match
Best Local S
Matches 35
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Best Loc
Matches
                                                                                                                                                                                                                                                                  GO; GO:0030141; C:secretory granule; IDA.
GO; GO:0030672; C:synaptic vesicle membrane; IDA.
GO; GO:0042589; C:synaptic vesicle membrane; IDA.
GO; GO:0042589; C:synaptic vesicle membrane; IDA.
GO; GO:0005516; F:calmodulin binding; IDA.
GO; GO:0005543; F:phospholipid binding; IDA.
GO; GO:0000144]; F:SNARE binding; IDA.
GO; GO:00017156; P:calcium ion-dependent exocytosis; IDA.
GO; GO:0017157; P:regulation of exocytosis; IDA.
GO; GO:0017157; P:regulation of exocytosis; IDA.
GO; GO:00170157; P:regulation of exocytosis; IDA.
GO; GO:0015083; P:synaptic vesicle fusion; IMP.
R GO; GO:001308; P:synaptic vesicle fusion; IMP.
R FINTES; PR001386; Synaptobrevin; 1.
R PRINTS; PR001219; SYNAPTOBREVIN.
R PROSITE; PS00417; SYNAPTOBREVIN; 1.
SEQUENCE 116 AA; "12677 MM; 4EIDOD56B5409DOA CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HSSP; Q9WUW2; 1SFC.
MGD; MGI:J313277; V
GO; GO:0030141; C:s
GO; GO:0030672; C:s
GO; GO:0042589; C:s
GO; GO:0005513; F:s
GO; GO:000149; F:s
GO; GO:0017157; P:s
GO; GO:0017157; P:s
GO; GO:0017157; P:s
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035619;
01-JAN-1998
01-JAN-1998
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PRINTS; PR00219; SYNAPTORREVN.
ProDom; PD001229; Synaptobrevin; 1.
PROSITE; PS00417; SYNAPTOBREVIN; 1.
PROSITE; PS50892; V SNARE; 1.
SEQUENCE 116 AA; 12663 MW; 9CD6
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Jensen M.J., Smith L.A.;
Submitted (MAR-2000) to the EMBL/Ge:
EMBL; AF240769; AAP64476.1; -.
HSSP; Q9WUW2; 1SFC.
InterPro; IPR001388; Synaptobrevin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Olken S.K., Doerre S., Corley Submitted (UDN-1997) to the Eve EMBL; AF007168; AAB62931.1; -- PIR; S35554; S35554.
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01-JAN-1998 (TrEMBLrel. 05, Last sequence update)
01-VAR-2004 (TrEMBLrel. 26, Last annotation update)
Vesicle associated membrane protein 2.
Name=Vamp2; Synonyms=mVAMP-2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=9544;
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Local Similarity
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                                                                                                                                  81.9%; Silarity 100.0%; Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
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                                                                                                                                      Score 181; DB
; Pred. No. 7.8
0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ey R.B.;
EMBL/GenBank/DDBJ
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                                                                                                                                                                                                                                                                                 4E1D0D56B5409D0A CRC64;
                                                                                                                                                                        181;
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thes 0;
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XX MEDLINE=2238257; PubMed=12477932;

X Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,

X Klausner R.D., Collins F.S., Magner L., Shenmen C.M., Schuler G.D.,

XA Hopkins R.F., Jeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

XA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

XA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

XA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

XA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hong L.,

XA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,

XA Stapleton M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

XA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

XA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

XA Brownstein M.J., Usdin T.B., Toshiyuki S., Garninci P., Prange C.,

XA Brownstein M.J., Usdin T.B., Toshiyuki S., Garninci P., Prange C.,

XA Broka S.S., Morley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

XA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

XA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

XA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

XA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

XA Richards S., Worley K.C., Hale S., Garcia A.M., Cay L.J., Hulyk S.W.,

XA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

XA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

XA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

XA Richards S., Worley K.C., Hale S., Garcia A.M., Schuck A.,

XA Richards S., Sanchez A.,

XA Richards S., Sanchez A.,

XA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,

XA Toroc T. May A. M., Touchman J.W., Garen E.D., Dickson M.C.,

XA Toroc T. May A. M., Touchman J.W., Sanailus D.E., Schnerch A., Schein J.B.,
TISSUE=Brain;
MEDLINE=22388257; PubMed=12477932;
Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
Strausberg R.L., Collins F.S., Wagner L., Shemmen C.M., Schuler G.D.
Klausner R.D., Collins F.S., Wagner L., Schaefer C.F., Bhat N.K.,
Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAH55105;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14-APR-2004 (TrEMBLrel. 27, 14-APR-2004 (TrEMBLrel. 27, 14-APR-2004 (TrEMBLrel. 27, Vesicle-associated membrane
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Mammalia; Eutheria;
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Eukaryota; Metazoa;
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14-APR-2004 (TrEMBLrel. 27,
14-APR-2004 (TrEMBLrel. 27,
Vesicle-associated membrane
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                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mus musculus (Mouse)
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                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
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l. Acad. Sci. U.S.A. 99:16899-16903(2002)
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Rodentia;
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                                                                                                                                                                                                                                                                                                                                                                                 Craniata; Vert
Sciurognathi;
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thi; Muridae; Murinae; Mus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
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SEQUENCE
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STRAIN=C57BL/6J; TISSUE=Brain;
MEDLINE=22354683; PubMed=12466851;
The FANTOM Consortium,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14-APR-2004 (TrEMBLrel. 27, Created)
14-APR-2004 (TrEMBLrel. 27, Last sequence update)
14-APR-2004 (TrEMBLrel. 27, Last sequence update)
14-APR-2004 (TrEMBLrel. 27, Last sequence update)
15 days embryo brain cDNA, RIKEN full-length enriched library,
clone:G630012G02 product:unclassifiable, full insert sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Strausberg R.;
Submitted (JUL-2003)
                                                                                                                                             SEQUENCE FROM N.A.
STRAIN=C57BL/60; TISSUE=Brain;
MEDLINE=99279253; PubMed=10349636;
Carninoi P., Hayashizaki Y.;
"High-efficiency full-length cDNA
Meth. Enzymol. 303:19-44(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Brain;
MEDLINE=21.085660; PubMed=11217851;
RIKEN FANTOM CONSORTIUM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        the RIKEN Genome Exploration Research "Analysis of the mouse transcriptome b 60,770 full-length cDNAs.";
Nature 420:563-573(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mus musculus (Mouse)
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                                                                                                                                                                                                                                                                                                                                                                                                                         "Functional annotation of Nature 409:685-690(2001).
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                                        SEQUENCE FROM N.A.
STRAIN=C57BL/6J; T
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Local Similarity
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NCE 116 AA; 12691 N
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                                                TISSUE=Brain;
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Rodentia;
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                                                                                                                                                                                          cDNA cloning.";
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Sciurognathi; Muridae;
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based on functional
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RESULT 12
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Best Local
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MEDLINE-20530913; PubMed=11076861;
Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Carninci P.,
Shibata K., Itoh M., Aizawa K., Nagaoka S., Tashiro H., Itoh M.,
Shibata K., Itoh M., Aizawa K., Kitsunai T., Tashiro H., Itoh M.,
Sumi N., Ishii Y., Nakamura S., Hazama M., Nishine T., Harada A.,
Yamamoto R., Matsumoto H., Sakaguchi S., Ikegami T., Kashiwagi K.,
Pujiwake S., Inoue K., Togawa Y., Izawa M., Ohara E., Watahiki M.,
Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J.,
Okazaki Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.,
"RIKEN integrated sequence analysis (RISA) system-384-format
sequencing pipeline with 384 multicapillary sequencer.";
Genome Res. 10:1757-1771(2000).
                 Pfam; PF
PRINTS;
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Carninci P., Shibata Y., Hayatsu N., Sugahara Y., Shiba
Konno H., Okazaki Y., Muramatuw N., Hayashizaki Y.;
"Normalization and subtraction of cap-trapper-selected
prepare full-length cDNA libraries for rapid discovery
Genome Res. 10:1617-1630(2000).
                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Rodentia; NCBI_TaxID=10116;
                                                              Mandic R., Lowe A.W.;

"Characterization of an alternatively spliced isoform
"Characterization of an alternatively spliced isoform
"Educated membrane protein-2 (VAMP-2).";
FEBS Lett. 451:209-213(1999).

EMBL; AJ133104; CAB43509.1; -.

InterPro; IPR001388; Synaptobrevin.
                                                                                                                                                                                                                                                                                                                                                                                                                                              01-NOV-1999 (TrEMBLrel. 12, 01-NOV-1999 (TrEMBLrel. 12, 01-JUN-2003 (TrEMBLrel. 24,
                                                                                                                                                                                                        SEQUENCE FROM N.A.
STRAIN-Sprague-Dawley;
MEDLINE-99297576; Pubm
                                                                                                                                                                                                                                                                                                                                                                                                                          Vesicle associated
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                      PF00957; Synaptobrevin;
S; PR00219; SYNAPTOBREVN
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NCE 116 AA; 12691 MW;
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  Synaptobrevin;
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Last annotation update)
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Sciurognathi;
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ka T.,
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                                                                                                                                                  DR HSSP; (
DR MGD; MG
NR GO; GO:

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Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,

A Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

A Hopkins R.F., Jordan H., Moore T., Rubin G.M., Hong L.,

A Hopkins R.F., Jordan H., Moore T., Rubin G.M., Hong L.,

A Hopkins R.F., Jordan H., Toshiyuki S., Caravant T.L., Scheetz T.E.,

Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,

A Stapleton M., J. Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

A Brownstein M.J., Usdin T.B., Peters G.J., Abramson R.D., Mullahy S.J.,

A Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

A Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,

A Bosak S.A., McEwan P.J., McKernan K.J., Malek J.J., J.J., Hulyk S.W.,

Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Glbbs R.A.,

Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Glbbs R.A.,

Pahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,

Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,

A Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,

Korsywinski M.I., Skalka U., Smailus D.E., Schnerch A., Schein J.E.,

Korsywinski M.I., Skalka U., Smailus D.E., Schnerch A., Schein J.E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Ma
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Matches
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Ol-OCT-2003 (TEMBLrel. 2)
Vamp2 protein (Fragment).
Name=Vamp2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q8CHR4;
Q8CHR4;
01-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROSITE;
PROSITE;
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
STRAIN=FVB/N; TISSUE=Mammary tumor. C3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Jones S.J., Marra M.A.; "Generation and initial analysis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=22388257;
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Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL; BC039745;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Submitted
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PRINTS; PR00219; SYNAPTOBREVN.
PRODOM; PD001129; Synaptobrevin;
PROSITE; PS00417; SYNAPTOBREVIN;
PROSITE; PS50892; V_SNAFE; 1.
                                                                                                                                                          WGD; MGI:131277; Vamp2.

3G; GO:0030141; C:secretory granule; IDA.

3G; GO:0030672; C:synaptic vesicle membrane; IDA.

3G; GO:0042589; C:zymogen granule membrane; IDA.

3G; GO:0042589; C:zymogen granule membrane; IDA.

3G; GO:0005516; F:calmodulin binding; IDA.

3G; GO:0005543; F:phospholipid binding; IDA.

3G; GO:000149; F:SNARE binding; IDA.

3G; GO:0017156; P:calcium ion-dependent exocytosis; IDA.

3G; GO:0017157; P:regulation of exocytosis; IDA.

3G; GO:0016083; P:synaptic vesicle fusion; IMP.

3G: GO:0016083; P:synaptic vesicle fusion; IMP.
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                                                                                                                                               PF00957;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q9WUW2;
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35; Conser
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'VB/N; TISSUE=Mammary tumor.

'23388257; PubMed=12477932;

'2214 E.A., Gro
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PS50892; V_SNARE; 1:
135 AA; 14509 MW; F37D14A87BDAB1F6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (NOV-2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (TrEMBLrel.
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                                                                                                                                       Synaptobrevin;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SCI.
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Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      81.9%;
100.0%;
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25,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL/GenBank/DDBJ databases
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99:16899-16903 (2002)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT;
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Best Local S
Matches 35
                                                                                                                                                                                    NON TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                 between the Swiss Institute of Bioinformat. the European Bioinformatics Institute. The use by non-profit institutions as long modified and this statement is not removed. entities requires a license agreement (See lor send an email to license@isb-sib.ch).
  DOMAIN
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SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-NOV-1995 (Rel. 32, Created)
15-DEC-1998 (Rel. 37, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Vesicle-associated membrane protein 2 (VAMP-2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=95324415; PubMed=7601005;
Knecht A.K., Good P.C., Dawid I.B., Harland R.N
"Dorsal-ventral patterning and differentiation
neural tissue in the absence of mesoderm.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A. Wang X.-H., Poo M.-M.; Submitted (NOV-1997) to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VAM2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; I
Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea;
                                                                                                                 DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This SWISS-PROT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -!- SUBCELLULAR LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Development
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Xenopodinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Kenopus laevis (African
                                                                                                 TRANSMEM
                                                                                                                                                                            Acetylation;
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                                                                                                                                                        ransmembrane.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          vesicles.
- SIMILARITY: 0
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    28
113 AA;
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Conservative (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     entry is copyright. It
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rdata; Craniata;
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X
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Pred. No.
                                                                                       By similarity.
Cytoplasmic (Potential)
Cytoplasmic type IV memb
      N-acetylserine (By similarity)
v-SNARE coiled-coil homology.
; 6EC6C937B29BC6AB CRC64;
                                                                             Cytoplasmic (Pot
Anchor for type
(Potential).
                                                            Vesicular (Potential)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         is produced through a 
ormatics and the EMBL
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ion of noggin-induced
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REDINE-2238257; PubMed=12477932;

AS strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,

AN Klausner R.D., Collins F.S., Magner L., Shenmen C.M., Schuler G.D.,

AN Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

AN Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

AN Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

AN Altschul S.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

AN Altschul S.F., Jordan H., Moore T., Max S.I., Wang J., Hong L.,

AN Altschul S., Usaire M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,

AN Altschul S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

AN Altschul S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

AN Altschul S., Worley K.C., Hale S., Garcia A.M., Gunaratne P.H.,

RA Altschul S., Worley K.C., Hale S., Garcia A.M., Gyp L.J., Hulyk S.W.,

AN Altschul S., Worley K.C., Hale S., Garcia A.M., Gyp L.J., Hulyk S.W.,

AN Altschul D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

AN Altschul D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

AN Altschul S., Worley R.C., Shevchenko Y., Bouffard G.G.,

AN Halsesley R.W., Touchman J.W., Green E.D., Dickson M.C.,

RA Holdesley R.W., Touchman J.W., Green E.D., Dickson M.C.,

AN Arraw M.A., Schmutz J., Myers R.M., Butterfield Y.S.,

An Arraw M.A., Stalska U., Smailus D.E., Schnerch A., Schein J.E.,

An Arraw M.A., An A., Schmutz J., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
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02-MAR-2004
02-MAR-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Xenopus laevis (African clawed frog).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
Xenopodinae; Xenopus; Xenopus.
                                                                                                                                              Klein S., Strausberg R.;
Submitted (OCT-2003) to the EMBL/GenBank/DDBJ databases
SMBHL; BC060344; AAH60344.1;
SEQUENCE 114 AA; 12472 MW; AEF2EDDCDF2D1DBF CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "Genetic and genomic tools for Xenopus research: The NIH Xenopus initiative."; Dev. Dyn. 225:384-391(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TISSUE=Embryo;
MEDLINE=23341132; PubMed=12454917;
Klein S.L., Strausberg R.L., Wagner L., Pontius J., Clifton S.W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
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VAMP2-B-PROV.
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                                                                                                                                                                                                                                                                             Jones S.J., Marra M.A.; "Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences."; proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=8355;
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97.1%;
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Pred. No. 1.4e-15;
1; Mismatches 0;
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Pred. No. 1.4e
1; Mismatches
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                                                                                                             Length 114;
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Search completed: November 1, 2004, 17:59:10 Job time : 117.625 secs

Length 113;